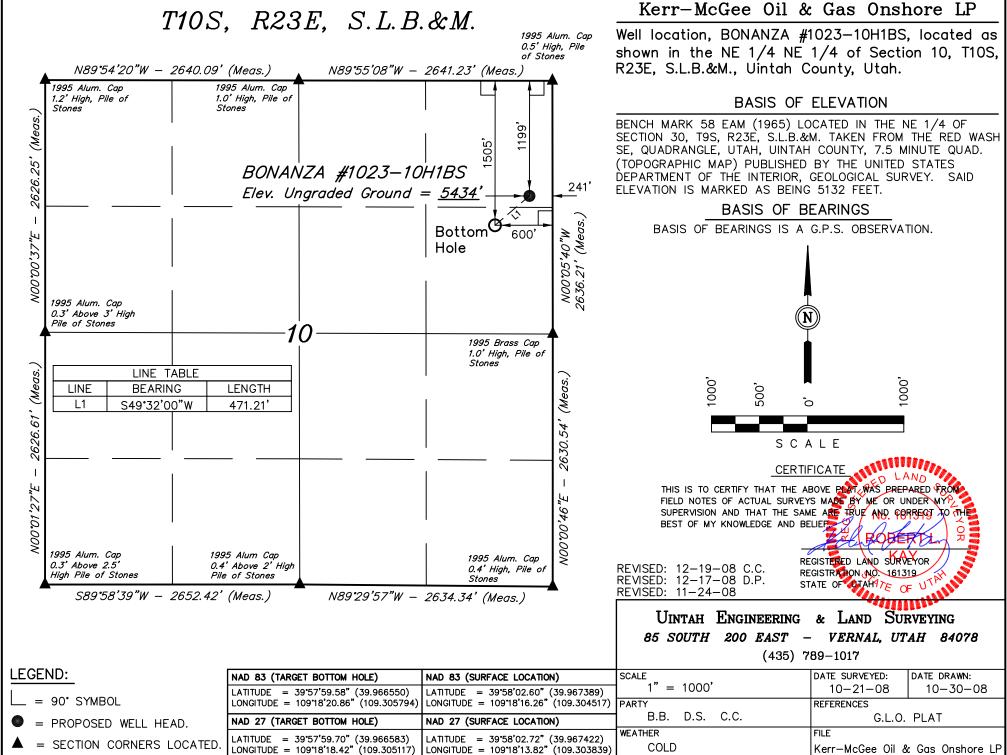
| | | ST DEPARTMENT DIVISION O | OF NA | | | | | FORI | | |
|--|--|--|-------------------------------------|---|----------|------------------|--|-----------------------------|-------------|--|
| APPLIC | CATION FOR | PERMIT TO DRILL | L | | | | 1. WELL NAME and | NUMBER nanza 1023-10H1BS | | |
| 2. TYPE OF WORK DRILL NEW WELL | REENTER P8 | A WELL DEEPE | N WELI | L() | | | 3. FIELD OR WILDO | AT NATURAL BUTTES | | |
| 4. TYPE OF WELL Gas We | ll Coalb | ed Methane Well: NO | | | | | 5. UNIT or COMMUNITIZATION AGREEMENT NAME | | | |
| 6. NAME OF OPERATOR KERR | -MCGEE OIL & G | GAS ONSHORE, L.P. | | 7. OPERATOR PHONE 720 929-6587 | | | | | | |
| 8. ADDRESS OF OPERATOR P.O. | . Box 173779, D | enver, CO, 80217 | 9. OP | | | | | IL ondragon@anadarko | .com | |
| 10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU 40736 | | 11. MINERAL OWNE FEDERAL INC | RAL OWNERSHIP 12. SURFACE OWNERSHIP | | | | | FEE (| | |
| 13. NAME OF SURFACE OWNER (if box 12 | = 'fee') | | | | | | 14. SURFACE OWNE | R PHONE (if box 1 | .2 = 'fee') | |
| 15. ADDRESS OF SURFACE OWNER (if box | 12 = 'fee') | | | | | | 16. SURFACE OWNE | R E-MAIL (if box 1 | 12 = 'fee') | |
| 17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN') | | 18. INTEND TO COM MULTIPLE FORMATI | IONS | LE PRODUCT | | ROM NO | 19. SLANT VERTICAL (DIR | ECTIONAL (HO | ORIZONTAL (| |
| 20. LOCATION OF WELL | | TR-QTR | | ECTION | TOWNSHIP | RANGE | MERIDIAN | | | |
| LOCATION AT SURFACE | 1199 F | 1199 FNL 241 FEL | | | | 10 | 10.0 S | 23.0 E | S | |
| Top of Uppermost Producing Zone | 1505 F | NL 600 FEL | | SENE | | 10 | 10.0 S | 23.0 E | S | |
| At Total Depth | 1505 F | NL 600 FEL | | SENE | | 10 | 10.0 S | 23.0 E | S | |
| 21. COUNTY UINTAH | | 22. DISTANCE TO N | | T LEASE LIN | E (Fee | et) | 23. NUMBER OF AC | RES IN DRILLING | UNIT | |
| | | 25. DISTANCE TO N (Applied For Drilling | g or Co | | AME P | POOL | 26. PROPOSED DEPTH MD: 7957 TVD: 7900 | | | |
| 27. ELEVATION - GROUND LEVEL 5434 | | 28. BOND NUMBER | WYB(| 29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF AF Permit #43-8496 | | | F APPLICABLE | | | |
| | | A. | TTACH | HMENTS | | | | | | |
| VERIFY THE FOLLOWING | ARE ATTACH | ED IN ACCORDAN | ICE W | ITH THE UT | ган с | OIL AND G | AS CONSERVATI | ON GENERAL RU | ILES | |
| WELL PLAT OR MAP PREPARED BY | LICENSED SUR | VEYOR OR ENGINEE | R | сом | IPLETE | E DRILLING | PLAN | | | |
| AFFIDAVIT OF STATUS OF SURFACE | AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE | | | | | OPERATOR | IS OTHER THAN T | HE LEASE OWNER | | |
| DIRECTIONAL SURVEY PLAN (IF DI | | № торо | OGRAP | PHICAL MAP | | | | | | |
| NAME Danielle Piernot | TI | I TLE Regulatory Analys | t | | - | PHONE 720 | 929-6156 | | | |
| SIGNATURE | Di | ATE 06/19/2009 | | | | EMAIL danie | elle.piernot@anadarko | .com | | |
| API NUMBER ASSIGNED 43047505170000 | AI | PPROVAL | | | | Bod | Lit Manager | | | |

API Well No: 43047505170000 Received: 6/19/2009

| | Prop | oosed Hole, Casing, a | and Cement | | |
|--------|-----------------|-----------------------|------------|-------------|--|
| String | Hole Size | Casing Size | Top (MD) | Bottom (MD) | |
| Prod | 7.875 | 4.5 | 0 | 7957 | |
| Pipe | Grade | Length | Weight | | |
| | Grade I-80 LT&C | 7957 | 11.6 | | |
| | | | | | |

API Well No: 43047505170000 Received: 6/19/2009

| | Prop | osed Hole, Casing, a | nd Cement | | |
|--------|-----------------|----------------------|-----------|-------------|--|
| String | Hole Size | Casing Size | Top (MD) | Bottom (MD) | |
| Surf | 12.25 | 9.625 | 0 | 2075 | |
| Pipe | Grade | Length | Weight | | |
| | Grade J-55 LT&C | 2075 | 36.0 | | |
| | | | | | |





ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27) Bonanza 1023-10A PAD Bonanza 1023-10H1BS

Bonanza 1023-10H1BS

Plan: Design #1

Standard Planning Report

23 January, 2009





Magnetic Field Strength: 52588.4snT Dip Angle: 65.97° Date: 1/22/2009 Model: BGGM2008

0

7800

7900 _ _ _

0

-600

Bonanza 1023-10H1BS UINTAH COUNTY, UTAH (nad 27) SECTION 10 T10S R23E 1199' FNL, 241' FEL 39° 58' 2.719 N 109° 18' 13.820 W



WELL DETAILS: Bonanza 1023-10H1BS

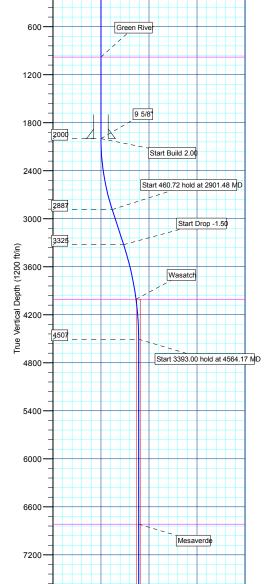
Ground Level: 5434.00

Northing 14518701.15 +N/-S +E/-W Easting Latittude Longitude Slot 0.00 0.00 2115678.58 39° 58' 2.719 N 109° 18' 13.820 W

WELLBORE TARGET DETAILS (LAT/LONG) Name TVD Latitude Shape PBHL 7900.00 -305.58 -358.18 39° 57' 59.699 N109° 18' 18.421 W Circle (Radius: 25.00)

| SECTION DETAILS | | | | | | | | | | | |
|-----------------|---------|-------|--------|---------|---------|---------|------|--------|--------|------------------------------|--|
| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSec | Target | |
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | |
| 2 | 2000.00 | 0.00 | 0.00 | 2000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 3 | 2901.48 | 18.03 | 229.53 | 2886.67 | -91.30 | -107.01 | 2.00 | 229.53 | 140.67 | | |
| 4 | 3362.20 | 18.03 | 229.53 | 3324.77 | -183.85 | -215.50 | 0.00 | 0.00 | 283.27 | | |
| 5 | 4564.17 | 0.00 | 0.00 | 4507.00 | -305.58 | -358.18 | 1.50 | 180.00 | 470.82 | | |
| 6 | 7957.17 | 0.00 | 0.00 | 7900.00 | -305.58 | -358.18 | 0.00 | 0.00 | 470.82 | PBHL_Bonanza 1023-10H1BS_NEW | |





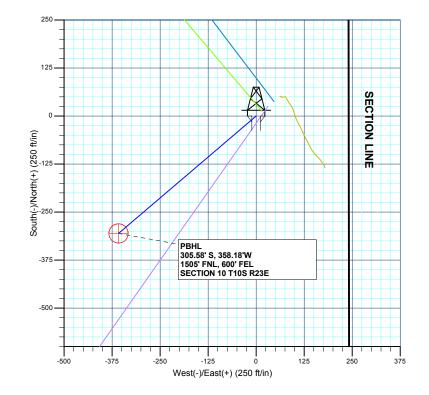
TD at 7957.17

1200

1800

600

Vertical Section at 229.53° (1200 ft/in)



FORMATION TOP DETAILS

TVDPath MDPath Formation 981.00 981.00 Green River 4007.00 4062.73 Wasatch 6818.00 6875.17 Mesaverde

| | CASING | DETAILS | |
|----------------|---------------|----------------|--|
| TVD 2000.00 | MD 2000.00 | Name 9 5/8" | |

Plan: Design #1 (Bonanza 1023-10H1BS/Bonanza 1023-10H1BS)

Created By: Robert H. Scott



Planning Report



Database: EDM 2003.21 Single User Db
Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: Bonanza 1023-10A PAD

Well: Bonanza 1023-10H1BS
Wellbore: Bonanza 1023-10H1BS

Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Site Bonanza 1023-10A PAD

229.53

WELL @ 5452.00ft (Original Well Elev)
WELL @ 5452.00ft (Original Well Elev)

True

Minimum Curvature

Project UINTAH COUNTY, UTAH (nad 27),

Map System: Universal Transverse Mercator (US Survey Fee System Datum: Mean Sea Level

0.00

Geo Datum: NAD 1927 - Western US
Map Zone: Zone 12N (114 W to 108 W)

Site Bonanza 1023-10A PAD, SECTION 10 T10S R23E

 Site Position:
 Northing:
 14,518,701.15ft
 Latitude:
 39° 58' 2.719 N

 From:
 Lat/Long
 Easting:
 2,115,678.58ft
 Longitude:
 109° 18' 13.820 W

 Position Uncortainty:
 0.00 ft
 Slet Position:
 Crid Convergence:
 1.09° 18' 13.820 W

Position Uncertainty: 0.00 ft Slot Radius: in Grid Convergence: 1.09 °

Well Bonanza 1023-10H1BS

 Well Position
 +N/-S
 0.00 ft
 Northing:
 14,518,701.15 ft
 Latitude:
 39° 58′ 2.719 N

 +E/-W
 0.00 ft
 Easting:
 2,115,678.58 ft
 Longitude:
 109° 18′ 13.820 W

Position Uncertainty 0.00 ft Wellhead Elevation: ft Ground Level: 5,434.00 ft

Wellbore Bonanza 1023-10H1BS

 Magnetics
 Model Name
 Sample Date
 Declination (°)
 Dip Angle (°)
 Field Strength (nT)

 BGGM2008
 1/22/2009
 11.32
 65.97
 52,588

Design #1 Design **Audit Notes: PLAN** 0.00 Version: Phase: Tie On Depth: **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°)

0.00

0.00

| Plan Sections | s | | | | | | | | | |
|---------------------------|-----------------|----------------|---------------------------|---------------|---------------|-----------------------------|----------------------------|---------------------------|------------|-----------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,000.00 | 0.00 | 0.00 | 2,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,901.48 | 18.03 | 229.53 | 2,886.67 | -91.30 | -107.01 | 2.00 | 2.00 | 0.00 | 229.53 | |
| 3,362.20 | 18.03 | 229.53 | 3,324.77 | -183.85 | -215.50 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4,564.17 | 0.00 | 0.00 | 4,507.00 | -305.58 | -358.18 | 1.50 | -1.50 | 0.00 | 180.00 | |
| 7,957.17 | 0.00 | 0.00 | 7,900.00 | -305.58 | -358.18 | 0.00 | 0.00 | 0.00 | 0.00 P | BHL_Bonanza 10: |



Planning Report



Database: EDM 2003.21 Single User Db
Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: Bonanza 1023-10A PAD

Well: Bonanza 1023-10H1BS
Wellbore: Bonanza 1023-10H1BS

Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Site Bonanza 1023-10A PAD

WELL @ 5452.00ft (Original Well Elev) WELL @ 5452.00ft (Original Well Elev)

True

Minimum Curvature

| Design. | | | | | | | | | |
|--|-------------------------|--|--|---|---|--|--------------------------------------|---|--------------------------------------|
| Planned Survey | | | | | | | | | |
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| Start Buil | d 2.00 - 9 5/8" | | | | | | | | |
| 2,000.00 2,100.00 2,200.00 2,300.00 | 0.00 2.00 4.00 | 0.00 229.53 229.53 229.53 | 2,000.00 2,099.98 2,199.84 2,299.45 | 0.00 -1.13 -4.53 -10.19 | 0.00 -1.33 -5.31 -11.94 | 0.00 1.75 6.98 15.69 | 0.00 2.00 2.00 2.00 | 0.00 2.00 2.00 2.00 | 0.00 0.00 0.00 0.00 |
| 2,400.00 2,500.00 2,600.00 2,700.00 2,800.00 | 10.00 12.00 14.00 | 229.53 229.53 229.53 229.53 229.53 | 2,398.70 2,497.47 2,595.62 2,693.06 2,789.64 | -18.10 -28.25 -40.63 -55.23 -72.03 | -21.21 -33.11 -47.63 -64.74 -84.43 | 27.88 43.52 62.60 85.10 110.98 | 2.00 2.00 2.00 2.00 2.00 | 2.00 2.00 2.00 2.00 2.00 | 0.00 0.00 0.00 0.00 0.00 |
| 2,900.00 | 18.00 | 229.53 | 2,885.27 | -91.00 | -106.67 | 140.21 | 2.00 | 2.00 | 0.00 |
| Start 460. | 72 hold at 2901 | | | | | | | | |
| 2,901.48 3,000.00 3,100.00 3,200.00 | 18.03 18.03 18.03 | 229.53 229.53 229.53 229.53 | 2,886.67 2,980.36 3,075.45 3,170.54 | -91.30 -111.09 -131.18 -151.27 | -107.01 -130.21 -153.76 -177.31 | 140.67 171.16 202.11 233.06 | 2.00 0.00 0.00 0.00 | 2.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 |
| 3,300.00 | | 229.53 | 3,265.63 | -171.36 | -200.85 | 264.02 | 0.00 | 0.00 | 0.00 |
| Start Dro | | 000 50 | 0.004.77 | 400.05 | 045.50 | 000.07 | 0.00 | 0.00 | 0.00 |
| 3,362.20 3,400.00 3,500.00 3,600.00 | 17.46 15.96 | 229.53 229.53 229.53 229.53 | 3,324.77 3,360.77 3,456.55 3,553.04 | -183.85 -191.33 -209.99 -227.02 | -215.50 -224.26 -246.14 -266.10 | 283.27 294.79 323.54 349.78 | 0.00 1.50 1.50 1.50 | 0.00 -1.50 -1.50 -1.50 | 0.00 0.00 0.00 0.00 |
| 3,700.00 3,800.00 3,900.00 4,000.00 | 11.46 9.96 | 229.53 229.53 229.53 229.53 | 3,650.19 3,747.92 3,846.18 3,944.88 | -242.41 -256.14 -268.20 -278.59 | -284.13 -300.23 -314.37 -326.54 | 373.49 394.64 413.23 429.24 | 1.50 1.50 1.50 1.50 | -1.50 -1.50 -1.50 -1.50 | 0.00 0.00 0.00 0.00 |
| Wasatch | | | | | | | | | |
| 4,062.73 | 7.52 | 229.53 | 4,007.00 | -284.25 | -333.18 | 437.96 | 1.50 | -1.50 | 0.00 |
| 4,100.00 4,200.00 4,300.00 4,400.00 4,500.00 | 5.46 3.96 2.46 | 229.53 229.53 229.53 229.53 229.53 | 4,043.98 4,143.39 4,243.05 4,342.89 4,442.84 | -287.30 -294.32 -299.66 -303.29 -305.23 | -336.75 -344.99 -351.24 -355.50 -357.77 | 442.66 453.48 461.69 467.30 470.29 | 1.50 1.50 1.50 1.50 1.50 | -1.50 -1.50 -1.50 -1.50 -1.50 | 0.00 0.00 0.00 0.00 0.00 |
| | 3.00 hold at 456 | | | | | | | | |
| 4,564.17 4,600.00 4,700.00 4,800.00 4,900.00 | 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 | 4,507.00 4,542.83 4,642.83 4,742.83 4,842.83 | -305.58 -305.58 -305.58 -305.58 -305.58 | -358.18 -358.18 -358.18 -358.18 -358.18 | 470.82 470.82 470.82 470.82 470.82 | 1.50 0.00 0.00 0.00 0.00 | -1.50 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 |
| 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00 | 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 | 4,942.83 5,042.83 5,142.83 5,242.83 5,342.83 | -305.58 -305.58 -305.58 -305.58 -305.58 | -358.18 -358.18 -358.18 -358.18 -358.18 | 470.82 470.82 470.82 470.82 470.82 | 0.00 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 |
| 5,500.00 5,600.00 5,700.00 5,800.00 5,900.00 | 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 | 5,442.83 5,542.83 5,642.83 5,742.83 5,842.83 | -305.58 -305.58 -305.58 -305.58 -305.58 | -358.18 -358.18 -358.18 -358.18 -358.18 | 470.82 470.82 470.82 470.82 470.82 | 0.00 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 |
| 6,000.00 6,100.00 6,200.00 6,300.00 6,400.00 | 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 | 5,942.83 6,042.83 6,142.83 6,242.83 6,342.83 | -305.58 -305.58 -305.58 -305.58 -305.58 | -358.18 -358.18 -358.18 -358.18 -358.18 | 470.82 470.82 470.82 470.82 470.82 | 0.00 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 |

Anadarko Anadarko

Weatherford International Ltd.

Planning Report



Database: Company: Project: EDM 2003.21 Single User Db ANADARKO PETROLEUM CORP. UINTAH COUNTY, UTAH (nad 27)

0.00

7,900.00

Site:Bonanza 1023-10A PADWell:Bonanza 1023-10H1BSWellbore:Bonanza 1023-10H1BS

Design: Design #1

7,957.17

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Site Bonanza 1023-10A PAD

WELL @ 5452.00ft (Original Well Elev) WELL @ 5452.00ft (Original Well Elev)

True

Minimum Curvature

0.00

0.00

0.00

| 200.g | 200.9 | | | | | | | | |
|--|-----------------------|--------------------------------------|--|---|---|--|--------------------------------------|--------------------------------------|--------------------------------------|
| Planned Survey | | | | | | | | | |
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 6,500.00 6,600.00 6,700.00 6,800.00 | 0.00 0.00 | 0.00 0.00 0.00 0.00 | 6,442.83 6,542.83 6,642.83 6,742.83 | -305.58 -305.58 -305.58 -305.58 | -358.18 -358.18 -358.18 -358.18 | 470.82 470.82 470.82 470.82 | 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 |
| Mesaverd 6,875.17 | | 0.00 | 6,818.00 | -305.58 | -358.18 | 470.82 | 0.00 | 0.00 | 0.00 |
| 6,900.00 7,000.00 7,100.00 7,200.00 7,300.00 | 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 | 6,842.83 6,942.83 7,042.83 7,142.83 7,242.83 | -305.58 -305.58 -305.58 -305.58 -305.58 | -358.18 -358.18 -358.18 -358.18 -358.18 | 470.82 470.82 470.82 470.82 470.82 | 0.00 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 |
| 7,400.00 7,500.00 7,600.00 7,700.00 7,800.00 | 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 | 7,342.83 7,442.83 7,542.83 7,642.83 7,742.83 | -305.58 -305.58 -305.58 -305.58 -305.58 | -358.18 -358.18 -358.18 -358.18 -358.18 | 470.82 470.82 470.82 470.82 470.82 | 0.00 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 0.00 |
| 7,900.00 | 0.00 nanza 1023-10 | 0.00 H1BS NFW | 7,842.83 | -305.58 | -358.18 | 470.82 | 0.00 | 0.00 | 0.00 |
| | | | | | | .= | | | |

| Design Targets | | | | | | | | | |
|--|------------------|-----------------|-------------|---------------|---------------|------------------|-----------------|------------------|-------------------|
| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
| PBHL_Bonanza 1023 - plan hits target o - Circle (radius 25 | enter | 0.00 | 7,900.00 | -305.58 | -358.18 | 14,518,388.81 | 2,115,326.28 | 39° 57′ 59.699 N | 109° 18' 18.421 W |

-358.18

470.82

-305.58

| Casing Points | | | | | | | |
|---------------|-------------------|-------------------|--------|------|--------------------|------------------|--|
| | Measured Depth | Vertical Depth | | | Casing Diameter | Hole Diameter | |
| | (ft) | (ft) | | Name | (in) | (in) | |
| | 2,000.00 | 2,000.00 | 9 5/8" | | 9.62 | 12.25 | |

| Formations | | | | | | | | |
|------------|---------------------------|---------------------------|-------------|------|-----------|------------|-------------------------|--|
| | Measured Depth (ft) | Vertical Depth (ft) | | Name | Lithology | Dip (°) | Dip Direction (°) | |
| | 981.00 | 981.00 | Green River | | | | | |
| | 4,062.73 | 4,007.00 | Wasatch | | | | | |
| | 6,875.17 | 6,818.00 | Mesaverde | | | | | |

'APIWellNo:43047505170000'



Weatherford International Ltd.

Planning Report



Database:EDM 2003.21 Single User DbCompany:ANADARKO PETROLEUM CORP.Project:UINTAH COUNTY, UTAH (nad 27)

Site:Bonanza 1023-10A PADWell:Bonanza 1023-10H1BSWellbore:Bonanza 1023-10H1BS

Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Site Bonanza 1023-10A PAD

WELL @ 5452.00ft (Original Well Elev)
WELL @ 5452.00ft (Original Well Elev)

True

Minimum Curvature

| - | - J | | | | |
|-------------|----------|----------|------------|---------|----------------------------------|
| Plan Annota | tions | | | | |
| | Measured | Vertical | Local Coor | dinates | |
| | Depth | Depth | +N/-S | +E/-W | |
| | (ft) | (ft) | (ft) | (ft) | Comment |
| | 2,000.00 | 2,000.00 | 0.00 | 0.00 | Start Build 2.00 |
| | 2,901.48 | 2,886.67 | -91.30 | -107.01 | Start 460.72 hold at 2901.48 MD |
| | 3,362.20 | 3,324.77 | -183.85 | -215.50 | Start Drop -1.50 |
| | 4,564.17 | 4,507.00 | -305.58 | -358.18 | Start 3393.00 hold at 4564.17 MD |
| | 7,957.17 | 7,900.00 | -305.58 | -358.18 | TD at 7957.17 |



ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27) Bonanza 1023-10A PAD Bonanza 1023-10H1BS

Bonanza 1023-10H1BS Design #1

Anticollision Report

23 January, 2009





Anticollision Report

TVD Reference:

MD Reference:

North Reference:



Company: ANADARKO PETROLEUM CORP.

Project: UINTAH COUNTY, UTAH (nad 27)

Reference Site: Bonanza 1023-10A PAD

Site Error: 0.00ft

Bonanza 1023-10H1BS Reference Well:

Well Error: 0.00ft

Reference Wellbore Bonanza 1023-10H1BS

Design #1 Reference Design:

Well Bonanza 1023-10H1BS **Local Co-ordinate Reference:**

WELL @ 5452.00ft (Original Well Elev)

WELL @ 5452.00ft (Original Well Elev)

ISCWSA

Minimum Curvature **Survey Calculation Method:**

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

Offset TVD Reference: Offset Datum

Reference

NO GLOBAL FILTER: Using user defined selection & filtering criteria Filter type:

Interpolation Method: Stations Error Model:

Unlimited Scan Method: Closest Approach 3D Depth Range: Results Limited by: Maximum center-center distance of 10,000.00ft **Error Surface:** Elliptical Conic

Warning Levels Evaluated at: 2.00 Sigma

Survey Tool Program Date 1/22/2009 From To Survey (Wellbore) **Tool Name** (ft) (ft) Description 0.00 7,957.17 Design #1 (Bonanza 1023-10H1BS) MWD MWD - Standard

| Summary | Reference | Offset | Dista | nco | | |
|--|---------------------------|---------------------------|----------------------------|-----------------------------|----------------------|------------|
| Site Name Offset Well - Wellbore - Design | Measured Depth (ft) | Measured Depth (ft) | Between Centres (ft) | Between Ellipses (ft) | Separation Factor | Warning |
| Bonanza 1023-10A PAD | | | | | | |
| BONANZA 1023-10A EXISTING - BONANZA 1023-10A | 0.00 | 0.00 | 80.35 | 70.00 | 42.004 | F0 |
| BONANZA 1023-10A EXISTING - BONANZA 1023-10A BONANZA 1023-10A EXISTING - BONANZA 1023-10A | 1,400.00 2,100.00 | 1,400.00 2,100.30 | 82.82 93.41 | 76.89 84.28 | 13.964 10.228 | |
| Bonanza 1023-10A2DS - Bonanza 1023-10A2DS - Desiç | 2,000.00 | 2,000.00 | 59.98 | 51.26 | 6.875 | CC, ES |
| Bonanza 1023-10A2DS - Bonanza 1023-10A2DS - Desiç | 2,100.00 | 2,099.80 | 61.85 | 52.71 | 6.764 | SF |
| Bonanza 1023-10A4DS - Bonanza 1023-10A4DS - Desiç | 2,000.00 | 2,000.00 | 19.99 | 11.27 | 2.291 | CC, ES, SF |
| Bonanza 1023-10H2DS - Bonanza 1023-10H2DS - Desiç | 2,538.17 | 2,545.38 | 25.74 | 14.87 | 2.367 | CC, ES, SF |

| Offset De | esign | Bonanz | za 1023- | 10A PAD - | BONAN | NZA 1023- | 10A EXISTING | G - BONA | NZA 1023 | 3-10A EX | (ISTING- | BONANZ | Offset Site Error: | 0.00 ft |
|--------------------|------------------|-------------------|----------------|-------------------------|--------|-----------|----------------|----------|------------------|-----------------|------------|------------|--------------------|---------|
| | | -NS-GYRO-M | | 0 | | | | | Dist | | | | Offset Well Error: | 0.00 ft |
| Refere Measured | ence Vertical | Offse Measured | et Vertical | Semi Major Reference | Offset | Highside | Offset Wellbor | o Contro | Dista Between | ence Between | Minimum | Separation | 10/ | |
| Depth | Depth | Depth | Depth | Keierence | Oliset | Toolface | +N/-S | +E/-W | Centres | | Separation | Factor | Warning | |
| (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (°) | (ft) | (ft) | (ft) | (ft) | (ft) | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 51.02 | 50.54 | 62.46 | 80.35 | | | | | |
| 100.00 | 100.00 | 99.48 | 99.47 | 0.09 | 0.11 | 50.82 | 50.97 | 62.53 | 80.68 | 80.47 | 0.20 | 401.357 | | |
| 200.00 | 200.00 | 199.74 | 199.74 | 0.32 | 0.37 | 50.51 | 51.62 | 62.64 | 81.17 | 80.48 | 0.69 | 117.528 | | |
| 300.00 | 300.00 | 299.87 | 299.87 | 0.54 | 0.55 | 50.55 | 51.73 | 62.86 | 81.41 | 80.31 | 1.10 | 74.306 | | |
| 400.00 | 400.00 | 399.93 | 399.92 | 0.77 | 0.71 | 50.84 | 51.49 | 63.22 | 81.54 | 80.07 | 1.47 | 55.309 | | |
| 500.00 | 500.00 | 499.75 | 499.74 | 0.99 | 0.93 | 51.09 | 51.34 | 63.61 | 81.75 | 79.83 | 1.92 | 42.650 | | |
| 600.00 | 600.00 | 599.77 | 599.76 | 1.22 | 1.16 | 51.49 | 51.09 | 64.20 | 82.04 | 79.66 | 2.38 | 34.466 | | |
| 700.00 | 700.00 | 699.47 | 699.45 | 1.44 | 1.41 | 51.97 | 50.83 | 65.00 | 82.52 | 79.67 | 2.85 | 28.937 | | |
| 800.00 | 800.00 | 800.00 | 799.98 | 1.67 | 1.65 | 52.32 | 50.65 | 65.58 | 82.86 | 79.55 | 3.32 | 24.979 | | |
| 885.02 | 885.02 | 885.06 | 885.04 | 1.86 | 1.84 | 52.69 | 50.23 | 65.90 | 82.86 | 79.16 | 3.70 | 22.402 | | |
| 900.00 | 900.00 | 900.00 | 899.98 | 1.89 | 1.88 | 52.77 | 50.13 | 65.98 | 82.86 | 79.09 | 3.77 | 22.002 | | |
| 1,000.00 | 1,000.00 | 999.38 | 999.36 | 2.12 | 2.11 | 53.21 | 49.84 | 66.65 | 83.23 | 79.00 | 4.23 | 19.678 | | |
| 1,100.00 | 1,100.00 | 1,100.40 | 1,100.38 | 2.34 | 2.33 | 53.61 | 49.47 | 67.13 | 83.39 | 78.72 | 4.67 | 17.856 | | |
| 1,200.00 | 1,200.00 | 1,200.14 | 1,200.11 | 2.56 | 2.53 | 54.01 | 48.83 | 67.23 | 83.09 | 78.00 | 5.09 | 16.322 | | |
| 1,300.00 | 1,300.00 | 1,300.32 | 1,300.29 | 2.79 | 2.71 | 54.24 | 48.42 | 67.23 | 82.85 | 77.35 | 5.50 | 15.063 | | |
| 1,346.89 | 1,346.89 | 1,346.95 | 1,346.93 | 2.89 | 2.81 | 54.32 | 48.26 | 67.22 | 82.75 | 77.05 | 5.70 | 14.513 | | |
| 1,400.00 | 1,400.00 | 1,400.00 | 1,399.97 | 3.01 | 2.92 | 54.43 | 48.17 | 67.37 | 82.82 | 76.89 | 5.93 | 13.964 E | S | |
| 1,500.00 | 1,500.00 | 1,498.62 | 1,498.59 | 3.24 | 3.15 | 54.67 | 48.46 | 68.36 | 83.81 | 77.42 | 6.39 | 13.121 | | |
| 1,600.00 | 1,600.00 | 1,598.56 | 1,598.52 | 3.46 | 3.37 | 54.86 | 49.22 | 69.93 | 85.53 | 78.70 | 6.83 | 12.524 | | |
| 1,700.00 | 1,700.00 | 1,698.76 | 1,698.70 | 3.69 | 3.60 | 55.23 | 49.69 | 71.57 | 87.14 | 79.85 | 7.29 | 11.955 | | |
| 1,800.00 | 1,800.00 | 1,798.57 | 1,798.49 | 3.91 | 3.84 | 55.65 | 50.06 | 73.25 | 88.73 | 80.98 | 7.76 | 11.441 | | |



Anticollision Report

TVD Reference:

MD Reference:

North Reference:



Company: ANADARKO PETROLEUM CORP.

Project: UINTAH COUNTY, UTAH (nad 27)

Reference Site: Bonanza 1023-10A PAD

Site Error: 0.00ft

Reference Well: Bonanza 1023-10H1BS

Well Error: 0.00ft

Reference Wellbore Bonanza 1023-10H1BS

Reference Design: Design #1

Local Co-ordinate Reference:

Well Bonanza 1023-10H1BS

WELL @ 5452.00ft (Original Well Elev)

WELL @ 5452.00ft (Original Well Elev)

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

| | esign | | | 10A PAD - | DONA | 12/1 1020- | TOALAIOTIN | O - DOINA | 1112/1102 | 0-10/A L/ | (ISTING- | DOINAIN | Offset Site Error: | 0.00 ft |
|--------------------------|----------|----------------------------|---------------------------|-------------------|--------------|-----------------------------|----------------|----------------|----------------------------|----------------|-------------------------------|----------------------|--------------------|---------|
| urvey Pro Refer | _ | 0-NS-GYRO-N Offs | | Semi Major | · Ayie | | | | Dist | ance | | | Offset Well Error: | 0.00 ft |
| easured Depth (ft) | | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | | Highside Toolface (°) | Offset Wellbor | +E/-W | Between Centres (ft) | Between | Minimum Separation (ft) | Separation Factor | Warning | |
| | | | | | | | (ft) | (ft) | | | | 10.000 | | |
| 1,900.00 | 1,900.00 | | 1,898.58 | 4.14 | 4.09 | 56.01 | 50.52 | 74.92 | 90.37 | 82.15 | | 10.988 | | |
| 2,000.00 | 2,000.00 | | 1,999.42 | 4.36 | 4.34 | 56.91 | 49.94 | 76.63 | 91.47 | 82.77 | 8.70 | 10.512 | - | |
| 2,100.00 | 2,099.98 | | 2,100.16 | 4.56 | 4.58 | -171.31 | 48.06 | 78.08 | 93.41 | | 9.13 | 10.228 S | F | |
| 2,200.00 2,300.00 | | | 2,200.11 2,299.40 | 4.75 4.94 | 4.80 5.03 | -170.10 -169.01 | 45.52 42.47 | 79.34 80.98 | 98.34 106.80 | 88.82 96.90 | 9.52 9.91 | 10.330 10.782 | | |
| 2,400.00 | 2,398.70 | 2,398.77 | 2,398.47 | 5.14 | 5.26 | -168.30 | 39.32 | 82.88 | 118.88 | 108.59 | 10.29 | 11.553 | | |
| 2,500.00 | 2,497.47 | | 2,497.66 | 5.37 | 5.50 | -168.19 | 36.49 | 84.47 | 134.23 | 123.56 | 10.67 | 12.585 | | |
| 2,600.00 | 2,595.62 | 2,596.30 | 2,595.89 | 5.62 | 5.73 | -168.44 | 33.79 | 85.79 | 152.76 | 141.73 | 11.03 | 13.850 | | |
| 2,700.00 | 2,693.06 | | 2,691.34 | 5.92 | 5.97 | -168.79 | 31.33 | 87.58 | 175.21 | 163.81 | 11.39 | 15.380 | | |
| 2,800.00 | | | | 6.25 | 6.22 | -169.22 | 29.00 | 89.79 | 201.39 | 189.63 | 11.76 | 17.130 | | |
| 2,901.48 | 2,886.67 | 2,887.54 | 2,886.99 | 6.65 | 6.46 | -169.78 | 26.63 | 91.33 | 230.75 | 218.64 | 12.11 | 19.054 | | |
| 3,000.00 | 2,980.36 | 2,981.07 | 2,980.48 | 7.08 | 6.69 | -170.33 | 24.22 | 92.63 | 260.71 | 248.15 | 12.56 | 20.757 | | |
| 3,100.00 | 3,075.45 | | 3,076.07 | 7.55 | 6.93 | -170.67 | 21.34 | 94.28 | 291.19 | 278.16 | 13.03 | 22.352 | | |
| 3,200.00 | 3,170.54 | | 3,172.04 | 8.04 | 7.17 | -170.95 | 18.34 | 95.75 | 321.45 | 307.95 | 13.50 | 23.807 | | |
| 3,300.00 | 3,265.63 | 3,268.99 | 3,268.23 | 8.56 | 7.40 | -171.20 | 15.28 | 96.98 | 351.49 | 337.51 | 13.98 | 25.146 | | |
| 3,362.20 | 3,324.77 | 3,328.95 | 3,328.15 | 8.88 | 7.54 | -171.35 | 13.42 | 97.57 | 370.05 | 355.77 | 14.27 | 25.923 | | |
| 3,400.00 | 3,360.77 | | 3,364.66 | 9.07 | 7.63 | -171.47 | 12.30 | 97.85 | 381.10 | 366.61 | | 26.301 | | |
| 3,500.00 | 3,456.55 | 3,461.24 | 3,460.38 | 9.49 | 7.86 | -171.72 | 9.44 | 98.49 | 408.57 | 393.52 | 15.05 | 27.139 | | |
| 3,600.00 | 3,553.04 | 3,556.78 | 3,555.88 | 9.90 | 8.09 | -171.89 | 6.67 | 99.35 | 433.79 | 418.18 | 15.61 | 27.784 | | |
| 3,700.00 | | | 3,653.24 | 10.30 | 8.32 | -171.98 | 3.91 | 100.44 | 456.70 | 440.53 | 16.17 | 28.245 | | |
| 3,800.00 | 3,747.92 | 3,753.33 | 3,752.34 | 10.68 | 8.56 | -172.02 | 1.03 | 101.34 | 476.87 | 460.15 | 16.72 | 28.522 | | |
| 3,900.00 | 3,846.18 | 3,851.53 | 3,850.50 | 11.04 | 8.81 | -172.02 | -1.90 | 102.08 | 494.33 | 477.07 | 17.26 | 28.645 | | |
| 4,000.00 | 3,944.88 | 3,948.74 | 3,947.65 | 11.37 | 9.05 | -171.95 | -4.87 | 103.16 | 509.49 | 491.71 | 17.78 | 28.653 | | |
| 4,100.00 | 4,043.98 | 4,047.35 | 4,046.20 | 11.68 | 9.30 | -171.81 | -7.92 | 104.60 | 522.35 | 504.06 | 18.30 | 28.549 | | |
| 4,200.00 | 4,143.39 | 4,147.55 | 4,146.35 | 11.95 | 9.55 | -171.65 | -10.93 | 105.92 | 532.57 | 513.77 | 18.80 | 28.322 | | |
| 4,300.00 | | | 4,245.31 | 12.20 | 9.81 | -171.46 | -13.82 | 107.08 | 540.14 | 520.85 | | 27.997 | | |
| 4,400.00 | 4,342.89 | 4,344.10 | 4,342.78 | 12.42 | 10.06 | -171.19 | -16.94 | 108.78 | 545.48 | 525.72 | 19.76 | 27.599 | | |
| 4,500.00 | 4,442.84 | 4,443.66 | 4,442.26 | 12.61 | 10.32 | -170.80 | -20.46 | 111.13 | 548.60 | 528.38 | 20.23 | 27.124 | | |
| 4,564.17 | 4,507.00 | 4,509.29 | 4,507.83 | 12.71 | 10.49 | 59.02 | -22.91 | 112.59 | 549.12 | 528.61 | 20.51 | 26.770 | | |
| 4,600.00 | 4,542.83 | 4,545.95 | 4,544.45 | 12.77 | 10.58 | 59.18 | -24.32 | 113.34 | 549.04 | 528.36 | 20.68 | 26.550 | | |
| 4,700.00 | 4,642.83 | 4,647.14 | 4,645.54 | 12.93 | 10.85 | 59.65 | -28.36 | 115.21 | 548.59 | 527.44 | 21.16 | 25.931 | | |
| 4,800.00 | 4,742.83 | 4,747.07 | 4,745.36 | 13.10 | 11.11 | 60.14 | -32.72 | 117.18 | 548.12 | 526.49 | 21.63 | 25.341 | | |
| 4,900.00 | 4,842.83 | | 4,845.43 | 13.27 | 11.37 | 60.68 | -37.43 | 119.34 | 547.66 | 525.56 | 22.11 | 24.774 | | |
| 5,000.00 | 4,942.83 | | 4,945.84 | 13.44 | 11.63 | 61.23 | -42.26 | 121.43 | 547.15 | 524.57 | 22.58 | 24.227 | | |
| 5,100.00 | | | 5,044.87 | 13.61 | 11.89 | 61.77 | -47.04 | 123.43 | 546.63 | 523.57 | 23.06 | 23.703 | | |
| 5,183.35 | 5,126.19 | 5,128.42 | 5,126.19 | 13.75 | 12.10 | 62.22 | -50.86 | 125.29 | 546.47 | 523.01 | 23.46 | 23.297 | | |
| 5,200.00 | 5,142.83 | 5,144.68 | 5,142.43 | 13.78 | 12.14 | 62.31 | -51.61 | 125.69 | 546.48 | 522.94 | 23.54 | 23.219 | | |
| 5,300.00 | 5,242.83 | 5,243.76 | 5,241.36 | 13.96 | 12.40 | 62.85 | -56.09 | 128.29 | 546.72 | 522.71 | 24.02 | 22.766 | | |
| 5,400.00 | | | 5,342.11 | 14.13 | 12.67 | 63.40 | -60.70 | 130.85 | 546.92 | 522.42 | 24.50 | 22.322 | | |
| 5,500.00 | 5,442.83 | 5,445.07 | 5,442.40 | 14.31 | 12.93 | 63.95 | -65.38 | 133.26 | 547.00 | 522.02 | 24.99 | 21.891 | | |
| | 5,542.83 | | 5,542.14 | 14.49 | 13.20 | 64.50 | -70.04 | 135.62 | 547.11 | | 25.47 | 21.479 | | |
| 5,700.00 | | | 5,642.21 | 14.67 | 13.46 | 65.05 | -74.70 | 137.97 | 547.24 | 521.29 | | 21.083 | | |
| 5,800.00 | | | 5,742.71 | 14.85 | 13.73 | 65.57 | -79.26 | 140.15 | 547.31 | | 26.44 | 20.697 | | |
| 5,852.28 | | | 5,795.26 | 14.94 | 13.86 | 65.84 | -81.59 | 141.20 | 547.31 | | | 20.500 | | |
| 5,900.00 | 5,842.83 | 5,844.74 | 5,841.56 | 15.03 | 13.99 | 66.08 | -83.62 | 142.15 | 547.36 | 520.43 | 26.93 | 20.328 | | |
| 6,000.00 | | | 5,938.44 | 15.21 | 14.24 | 66.58 | -87.82 | 144.54 | 547.88 | | 27.40 | 19.992 | | |
| 6,100.00 | • | | | 15.40 | 14.50 | 67.10 | -91.96 | 147.44 | 548.94 | 521.05 | | 19.685 | | |
| 6,200.00 | | | 6,134.52 | 15.58 | 14.77 | 67.62 | -96.03 | 150.61 | 550.32 | | 28.37 | 19.396 | | |
| 6,300.00 | | | 6,233.17 | 15.77 | 15.03 | 68.13 | -99.97 | 153.96 | 551.96 | 523.10 | 28.86 | 19.125 | | |
| 6,400.00 | 6,342.83 | 6,335.82 | 6,331.98 | 15.96 | 15.29 | 68.63 | -103.80 | 157.45 | 553.81 | 524.47 | 29.35 | 18.871 | | |
| 6,500.00 | | | 6,431.70 | 16.15 | 15.56 | 69.12 | -107.51 | 161.06 | 555.85 | | | 18.630 | | |
| 6,600.00 | 6,542.83 | 6,537.25 | 6,533.17 | 16.33 | 15.83 | 69.57 | -110.91 | 164.37 | 557.72 | 527.39 | 30.33 | 18.389 | | |



Anticollision Report

MD Reference:

North Reference:



Company: ANADARKO PETROLEUM CORP.

Project: UINTAH COUNTY, UTAH (nad 27)

Reference Site: Bonanza 1023-10A PAD

Site Error: 0.00ft

Reference Well: Bonanza 1023-10H1BS

Well Error: 0.00ft

Reference Wellbore Bonanza 1023-10H1BS

Reference Design: Design #1

Local Co-ordinate Reference:

Well Bonanza 1023-10H1BS **TVD Reference:**

WELL @ 5452.00ft (Original Well Elev) WELL @ 5452.00ft (Original Well Elev)

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

| Offset D | esign | Bonan | za 1023- | 10A PAD - | BONA | NZA 1023- | 10A EXISTIN | G - BONA | NZA 102 | 3-10A E> | (ISTING - | BONAN | Offset Site Error: | 0.00 ft |
|---------------------------|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---------------------------------|----------------------------|----------------------------|-----------------------------|-------------------------------|----------------------|--------------------|---------|
| | | -NS-GYRO-N | | | | | | | | | | | Offset Well Error: | 0.00 ft |
| Refer | ence | Offs | et | Semi Major | Axis | | | | Dista | ince | | | | |
| leasured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbor +N/-S (ft) | re Centre +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning | |
| 6,700.00 | 6,642.83 | 6,639.60 | 6,635.43 | 16.52 | 16.10 | 69.96 | -113.92 | 167.19 | 559.29 | 528.47 | 30.82 | 18.146 | | |
| 6,800.00 | 6,742.83 | 6,743.10 | 6,738.86 | 16.72 | 16.38 | 70.33 | -117.01 | 169.42 | 560.30 | 528.99 | 31.32 | 17.892 | | |
| 6,900.00 | 6,842.83 | 6,843.51 | 6,839.21 | 16.91 | 16.64 | 70.69 | -120.13 | 171.09 | 560.83 | 529.03 | 31.80 | 17.634 | | |
| 7,000.00 | 6,942.83 | 6,940.12 | 6,935.75 | 17.10 | 16.90 | 71.04 | -123.04 | 173.07 | 561.78 | 529.50 | 32.28 | 17.404 | | |
| 7,100.00 | 7,042.83 | 7,040.28 | 7,035.84 | 17.29 | 17.16 | 71.40 | -125.93 | 175.58 | 563.23 | 530.47 | 32.76 | 17.191 | | |
| 7,200.00 | 7,142.83 | 7,146.31 | 7,141.81 | 17.49 | 17.43 | 71.75 | -129.02 | 177.41 | 563.94 | 530.69 | 33.26 | 16.956 | | |
| 7,300.00 | 7,242.83 | 7,248.84 | 7,244.29 | 17.68 | 17.70 | 72.07 | -132.04 | 178.19 | 563.75 | 530.01 | 33.74 | 16.708 | | |
| 7,400.00 | 7,342.83 | 7,347.79 | 7,343.20 | 17.88 | 17.95 | 72.35 | -134.69 | 178.87 | 563.59 | 529.37 | 34.21 | 16.473 | | |
| 7,402.58 | 7,345.42 | 7,350.00 | 7,345.41 | 17.88 | 17.95 | 72.35 | -134.75 | 178.89 | 563.59 | 529.36 | 34.22 | 16.467 | | |
| 7,500.00 | 7,442.83 | 7,350.00 | 7,345.41 | 18.08 | 17.95 | 72.35 | -134.75 | 178.89 | 571.94 | 537.51 | 34.43 | 16.610 | | |
| 7,600.00 | 7,542.83 | 7,350.00 | 7,345.41 | 18.27 | 17.95 | 72.35 | -134.75 | 178.89 | 597.16 | 562.52 | 34.65 | 17.236 | | |
| 7,700.00 | 7,642.83 | 7,350.00 | 7,345.41 | 18.47 | 17.95 | 72.35 | -134.75 | 178.89 | 637.25 | 602.39 | 34.86 | 18.279 | | |
| 7,800.00 | 7,742.83 | 7,350.00 | 7,345.41 | 18.67 | 17.95 | 72.35 | -134.75 | 178.89 | 689.62 | 654.54 | 35.08 | 19.660 | | |
| 7,900.00 | 7,842.83 | 7,350.00 | 7,345.41 | 18.87 | 17.95 | 72.35 | -134.75 | 178.89 | 751.70 | 716.41 | 35.29 | 21.300 | | |
| 7,957.17 | 7,900.00 | 7,350.00 | 7,345.41 | 18.98 | 17.95 | 72.35 | -134.75 | 178.89 | 790.69 | 755.28 | 35.41 | 22.327 | | |



Anticollision Report



Company: ANADARKO PETROLEUM CORP.

Project: UINTAH COUNTY, UTAH (nad 27)

Reference Site: Bonanza 1023-10A PAD

Site Error: 0.00ft

Reference Well: Bonanza 1023-10H1BS

Well Error: 0.00ft

Reference Wellbore Bonanza 1023-10H1BS

Reference Design: Design #1

Local Co-ordinate Reference:

Well Bonanza 1023-10H1BS **TVD Reference:** WELL @ 5452.00ft (Original Well Elev)

MD Reference: WELL @ 5452.00ft (Original Well Elev)

North Reference:

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

| | esign | | za 1023- | 10A PAD - | Bonanz | za 1023-10 | A2DS - Bona | nza 1023 | -10A2DS | Design | #1 | | Offset Site Error: | 0.00 ft |
|--------------------------|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---------------------------------|---------------------------|----------------------------|-----------------------------|-------------------------------|----------------------|--------------------|---------|
| ırvey Pro | gram: 0-N | IWD | | | | | | | | | | | Offset Well Error: | 0.00 ft |
| Refer | ence | Offs | | Semi Major | Axis | | | | Dista | ance | | | | |
| easured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbor +N/-S (ft) | e Centre +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 51.29 | 37.52 | 46.80 | 59.98 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.00 | 0.00 | 51.29 | 37.52 | 46.80 | 59.98 | | 0.18 | 325.452 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.32 | 0.32 | 51.29 | 37.52 | 46.80 | 59.98 | | | 94.635 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.54 | 0.54 | 51.29 | 37.52 | 46.80 | 59.98 | | 1.08 | 55.367 | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 0.77 | 0.77 | 51.29 | 37.52 | 46.80 | 59.98 | | | 39.131 | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 0.99 | 0.99 | 51.29 | 37.52 | 46.80 | 59.98 | | 1.98 | 30.257 | | |
| 000.00 | 000.00 | 000.00 | 000.00 | 0.00 | 0.00 | 01.20 | 07.02 | 10.00 | 00.00 | 00.00 | 1.00 | 00.201 | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.22 | 1.22 | 51.29 | 37.52 | 46.80 | 59.98 | 57.55 | 2.43 | 24.665 | | |
| 700.00 | 700.00 | 700.00 | 700.00 | 1.44 | 1.44 | 51.29 | 37.52 | 46.80 | 59.98 | 57.10 | 2.88 | 20.817 | | |
| 800.00 | 800.00 | 800.00 | 800.00 | 1.67 | 1.67 | 51.29 | 37.52 | 46.80 | 59.98 | 56.65 | 3.33 | 18.007 | | |
| 900.00 | 900.00 | 900.00 | 900.00 | 1.89 | 1.89 | 51.29 | 37.52 | 46.80 | 59.98 | 56.20 | 3.78 | 15.866 | | |
| 1,000.00 | 1,000.00 | 1,000.00 | 1,000.00 | 2.12 | 2.12 | 51.29 | 37.52 | 46.80 | 59.98 | 55.75 | 4.23 | 14.180 | | |
| 1,100.00 | 1,100.00 | 1,100.00 | 1,100.00 | 2.34 | 2.34 | 51.29 | 37.52 | 46.80 | 59.98 | 55.30 | 4.68 | 12.818 | | |
| 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 | 2.56 | 2.56 | 51.29 | 37.52 | 46.80 | 59.98 | | 5.13 | 11.695 | | |
| 1,300.00 | 1,300.00 | 1,300.00 | 1,300.00 | 2.79 | 2.79 | 51.29 | 37.52 | 46.80 | 59.98 | | 5.58 | 10.752 | | |
| 1,400.00 | 1,400.00 | 1,400.00 | 1,400.00 | 3.01 | 3.01 | 51.29 | 37.52 | 46.80 | 59.98 | | 6.03 | 9.950 | | |
| 1,500.00 | 1,500.00 | 1,500.00 | 1,500.00 | 3.24 | 3.24 | 51.29 | 37.52 | 46.80 | 59.98 | 53.51 | 6.48 | 9.260 | | |
| 1,600.00 | 1,600.00 | 1,600.00 | 1,600.00 | 3.46 | 3.46 | 51.29 | 37.52 | 46.80 | 59.98 | 53.06 | 6.93 | 8.659 | | |
| 1,700.00 | 1,700.00 | 1,700.00 | 1,700.00 | 3.69 | 3.69 | 51.29 | 37.52 | 46.80 | 59.98 | | | 8.131 | | |
| 1,800.00 | 1,800.00 | 1,800.00 | 1,800.00 | 3.91 | 3.91 | 51.29 | 37.52 | 46.80 | 59.98 | | | 7.664 | | |
| 1,900.00 | 1,900.00 | 1,900.00 | 1,900.00 | 4.14 | 4.14 | 51.29 | 37.52 | 46.80 | 59.98 | | | 7.248 | | |
| 2,000.00 | 2,000.00 | 2,000.00 | 2,000.00 | 4.36 | 4.36 | 51.29 | 37.52 | 46.80 | 59.98 | | 8.73 | 6.875 (| CC, ES | |
| 2,100.00 | 2,099.98 | 2,099.80 | 2,099.76 | 4.56 | 4.59 | 179.29 | 39.59 | 45.23 | 61.85 | 52.71 | 9.14 | 6.764 8 | SF. | |
| 2,200.00 | 2,199.84 | 2,198.91 | 2,198.56 | 4.75 | 4.81 | 172.80 | 45.75 | 40.54 | 68.06 | | 9.53 | 7.140 | , | |
| 2,300.00 | | 2,296.67 | 2,295.47 | 4.94 | 5.04 | 164.49 | 55.82 | 32.88 | 79.88 | | 9.93 | 8.046 | | |
| 2,400.00 | 2,398.70 | 2,392.44 | 2,389.68 | 5.14 | 5.28 | 156.48 | 69.49 | 22.48 | 98.30 | | 10.34 | 9.506 | | |
| 2,500.00 | | 2,485.69 | 2,480.47 | 5.37 | 5.54 | 149.83 | 86.41 | 9.62 | 123.53 | | 10.78 | 11.464 | | |
| 2,600.00 | 2,595.62 | 2,575.94 | 2,567.25 | 5.62 | 5.85 | 144.65 | 106.11 | -5.37 | 155.32 | 144.09 | 11.24 | 13.824 | | |
| 2,700.00 | 2,693.06 | 2,662.82 | 2,649.59 | 5.92 | 6.19 | 140.65 | 128.15 | -22.13 | 193.22 | 181.49 | 11.72 | 16.481 | | |
| 2,800.00 | 2,789.64 | 2,746.04 | 2,727.21 | 6.25 | 6.57 | 137.52 | 152.03 | -40.29 | 236.74 | 224.50 | 12.25 | 19.330 | | |
| 2,901.48 | 2,886.67 | 2,826.54 | 2,800.98 | 6.65 | 7.00 | 134.95 | 177.67 | -59.79 | 286.21 | 273.40 | 12.81 | 22.340 | | |
| 3,000.00 | 2,980.36 | 2,900.00 | 2,867.06 | 7.08 | 7.45 | 133.55 | 203.20 | -79.21 | 337.96 | 324.52 | 13.44 | 25.141 | | |
| 3,100.00 | 3,075.45 | 2,974.07 | 2,932.39 | 7.55 | 7.96 | 132.13 | 230.98 | -100.33 | 393.04 | 378.91 | 14.13 | 27.810 | | |
| 3,200.00 | | 3,056.22 | 3,004.10 | 8.04 | 8.59 | 130.77 | 262.89 | -124.60 | 449.45 | | 14.89 | 30.179 | | |
| 3,300.00 | 3,265.63 | 3,138.38 | 3,075.81 | 8.56 | 9.25 | 129.71 | 294.79 | -148.87 | 505.99 | | | 32.289 | | |
| 3,362.20 | 3,324.77 | 3,189.48 | 3,120.41 | 8.88 | 9.67 | 129.17 | 314.64 | -163.96 | 541.21 | | 16.17 | 33.478 | | |
| 3,400.00 | 3,360.77 | 3,220.59 | 3,147.56 | 9.07 | 9.94 | 129.15 | 326.72 | -173.15 | 562.54 | | 16.48 | 34.132 | | |
| 3,500.00 | 3,456.55 | 3,303.40 | 3,219.85 | 9.49 | 10.65 | 129.04 | 358.89 | -197.61 | 618.06 | 600.78 | 17.29 | 35.750 | | |
| 3,600.00 | 3,553.04 | 3,386.91 | 3,292.74 | 9.90 | 11.39 | 128.84 | 391.32 | -222.28 | 672.33 | | 18.11 | 37.124 | | |
| 3,700.00 | | 3,471.05 | 3,366.19 | 10.30 | 12.15 | 128.58 | 424.00 | -247.13 | 725.34 | 706.41 | | 38.307 | | |
| | 3,747.92 | | 3,440.15 | 10.68 | 12.13 | 128.25 | 456.91 | -272.16 | 777.14 | | | 39.339 | | |
| | 3,846.18 | ., | 3,514.57 | 11.04 | 13.71 | 127.88 | 490.02 | -297.34 | 827.74 | | | 40.254 | | |
| 4,000.00 | 3,944.88 | 3,757.50 | 3,617.20 | 11.37 | 14.64 | 127.15 | 533.82 | -330.66 | 876.02 | 854.61 | 21.41 | 40.917 | | |
| 4,100.00 | 4,043.98 | 3,890.28 | 3,737.39 | 11.68 | 15.57 | 126.43 | 578.69 | -364.78 | 919.08 | 896.85 | 22.23 | 41.343 | | |
| 4,200.00 | | 4,030.77 | 3,867.90 | 11.95 | 16.44 | 125.80 | 620.04 | -396.23 | 956.34 | 933.33 | 23.02 | 41.548 | | |
| 4,300.00 | 4,243.05 | 4,178.37 | 4,008.16 | 12.20 | 17.24 | 125.26 | 656.55 | -424.00 | 987.32 | 963.57 | 23.76 | 41.560 | | |
| 4,400.00 | 4,342.89 | 4,332.16 | 4,157.13 | 12.42 | 17.93 | 124.78 | 686.87 | -447.06 | 1,011.59 | 987.16 | 24.43 | 41.414 | | |
| 4,500.00 | 4,442.84 | 4,490.91 | 4,313.23 | 12.61 | 18.49 | 124.36 | 709.75 | -464.46 | 1,028.77 | 1,003.75 | 25.02 | 41.125 | | |
| 4,564.17 | | 4,594.70 | 4,416.20 | 12.71 | 18.77 | -6.35 | 720.03 | -472.28 | 1,035.93 | | 25.34 | 40.882 | | |
| 4,600.00 | | 4,653.12 | 4,474.39 | 12.77 | 18.90 | -6.50 | 724.19 | -475.44 | 1,038.68 | • | 25.49 | 40.743 | | |
| 4,700.00 | | 4,817.13 | 4,638.22 | 12.93 | 19.16 | -6.68 | 729.53 | -479.50 | 1,042.21 | | 25.92 | 40.215 | | |
| 4,800.00 | | 4,921.74 | | 13.10 | 19.27 | -6.69 | 729.55 | -479.52 | | 1,015.98 | | 39.712 | | |
| 4 900 00 | 4,842.83 | 5,021.74 | 4,842.83 | 13.27 | 19.38 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,015.64 | 26.58 | 39.211 | | |



Anticollision Report



Company: ANADARKO PETROLEUM CORP.

Project: UINTAH COUNTY, UTAH (nad 27) Bonanza 1023-10A PAD

Reference Site:

Site Error: 0.00ft

Reference Well: Bonanza 1023-10H1BS

Well Error: 0.00ft

Reference Wellbore Bonanza 1023-10H1BS

Reference Design: Design #1

Local Co-ordinate Reference:

Well Bonanza 1023-10H1BS **TVD Reference:**

WELL @ 5452.00ft (Original Well Elev) MD Reference: WELL @ 5452.00ft (Original Well Elev)

North Reference:

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

| Offset Do | - | | za 1023- | 10A PAD - | Bonanz | za 1023-10 | A2DS - Bona | ınza 1023 | -10A2DS | - Design | #1 | | Offset Site Error: | 0.00 ft |
|----------------------|----------------------|----------------------|----------------------|------------|----------------|----------------------|------------------|--------------------|----------------------|----------------------|-----------------------|----------------------|--------------------|---------|
| Survey Prog | | | | | | | | | | | | | Offset Well Error: | 0.00 ft |
| Refere | | Offs | | Semi Major | | | | | Dista | | | | | |
| Measured Depth | Vertical Depth | Measured Depth | Vertical Depth | Reference | Offset | Highside Toolface | Offset Wellbo | | Between Centres | Between Ellipses | Minimum Separation | Separation Factor | Warning | |
| (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (°) | +N/-S (ft) | +E/-W (ft) | (ft) | (ft) | (ft) | Factor | | |
| 5,000.00 | 4,942.83 | 5,121.74 | 4,942.83 | 13.44 | 19.50 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,015.30 | 26.92 | 38.718 | | |
| 5,100.00 | 5,042.83 | 5,221.74 | 5,042.83 | 13.61 | 19.62 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,014.96 | 27.26 | 38.233 | | |
| 5,200.00 | 5,142.83 | 5.321.74 | 5,142.83 | 13.78 | 19.74 | -6.69 | 729.55 | -479.52 | 1.042.22 | • | 27.60 | 37.755 | | |
| 5,300.00 | 5,242.83 | 5,421.74 | 5,242.83 | 13.96 | 19.86 | -6.69 | 729.55 | -479.52 | 1,042.22 | , - | 27.95 | 37.285 | | |
| 5,400.00 | 5,342.83 | 5,521.74 | 5,342.83 | 14.13 | 19.99 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,013.92 | 28.30 | 36.824 | | |
| 5,500.00 | 5,442.83 | 5,621.74 | 5,442.83 | 14.31 | 20.11 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,013.56 | 28.66 | 36.370 | | |
| 5,600.00 | 5,542.83 | 5,721.74 | 5,542.83 | 14.49 | 20.24 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,013.21 | 29.01 | 35.923 | | |
| 5,700.00 | 5,642.83 | 5,821.74 | 5,642.83 | 14.67 | 20.27 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,013.21 | 29.37 | 35.485 | | |
| 5,800.00 | 5,742.83 | 5,921.74 | 5,742.83 | 14.85 | 20.50 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,012.49 | 29.73 | 35.054 | | |
| 5,900.00 | 5,842.83 | 6,021.74 | 5,842.83 | 15.03 | 20.64 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,012.13 | 30.09 | 34.631 | | |
| 6,000.00 | 5,942.83 | 6,121.74 | 5,942.83 | 15.21 | 20.77 | -6.69 | 729.55 | -479.52 | 1,042.22 | • | 30.46 | 34.216 | | |
| 6 100 00 | 6.040.00 | 6 224 74 | 6.040.00 | 15.40 | 20.01 | 6.60 | 720 FF | 470.50 | 1 040 00 | 1 011 20 | 20.02 | 22.007 | | |
| 6,100.00 6,200.00 | 6,042.83 6,142.83 | 6,221.74 6.321.74 | 6,042.83 6.142.83 | 15.40 | 20.91 21.04 | -6.69 -6.69 | 729.55 729.55 | -479.52 -479.52 | 1,042.22 1,042.22 | 1,011.39 1,011.02 | 30.83 31.20 | 33.807 33.407 | | |
| 6,300.00 | 6,242.83 | 6,421.74 | 6,242.83 | 15.56 | 21.04 | -6.69 | 729.55 729.55 | -479.52 -479.52 | 1,042.22 | 1,011.02 | 31.20 | 33.013 | | |
| 6,400.00 | 6,342.83 | 6,521.74 | 6,342.83 | 15.77 | 21.10 | -6.69 | 729.55 | -479.52 -479.52 | 1,042.22 | 1,010.03 | 31.94 | 32.627 | | |
| 6,500.00 | 6,442.83 | 6,621.74 | 6,442.83 | 16.15 | 21.47 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,009.90 | 32.32 | 32.247 | | |
| 0,000.00 | 0,442.00 | 0,021.74 | 0,112.00 | 10.10 | 21.47 | 0.00 | 720.00 | 470.02 | 1,0-12.22 | 1,000.00 | 02.02 | 02.2-1 | | |
| 6,600.00 | 6,542.83 | 6,721.74 | 6,542.83 | 16.33 | 21.61 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,009.52 | 32.70 | 31.875 | | |
| 6,700.00 | 6,642.83 | 6,821.74 | 6,642.83 | 16.52 | 21.75 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,009.14 | 33.08 | 31.509 | | |
| 6,800.00 | 6,742.83 | 6,921.74 | 6,742.83 | 16.72 | 21.90 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,008.76 | 33.46 | 31.150 | | |
| 6,900.00 | 6,842.83 | 7,021.74 | 6,842.83 | 16.91 | 22.05 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,008.38 | 33.84 | 30.798 | | |
| 7,000.00 | 6,942.83 | 7,121.74 | 6,942.83 | 17.10 | 22.20 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,008.00 | 34.23 | 30.452 | | |
| 7,100.00 | 7,042.83 | 7,221.74 | 7,042.83 | 17.29 | 22.35 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,007.61 | 34.61 | 30.112 | | |
| 7,200.00 | 7,142.83 | 7,321.74 | 7,142.83 | 17.49 | 22.50 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,007.22 | 35.00 | 29.779 | | |
| 7,300.00 | 7,242.83 | 7,421.74 | 7,242.83 | 17.68 | 22.65 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,006.83 | 35.39 | 29.452 | | |
| 7,400.00 | 7,342.83 | 7,521.74 | 7,342.83 | 17.88 | 22.80 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,006.44 | 35.78 | 29.130 | | |
| 7,500.00 | 7,442.83 | 7,621.74 | 7,442.83 | 18.08 | 22.96 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,006.05 | 36.17 | 28.815 | | |
| 7,600.00 | 7,542.83 | 7.721.74 | 7,542.83 | 18.27 | 23.11 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,005.66 | 36.56 | 28.505 | | |
| 7,700.00 | 7,642.83 | 7,821.74 | 7,642.83 | 18.47 | 23.27 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,005.26 | 36.96 | 28.201 | | |
| 7,800.00 | 7,742.83 | 7,921.74 | 7,742.83 | 18.67 | 23.43 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,004.87 | 37.35 | 27.903 | | |
| 7,900.00 | 7,842.83 | 8,021.74 | 7,842.83 | 18.87 | 23.59 | -6.69 | 729.55 | -479.52 | 1,042.22 | 1,004.47 | 37.75 | 27.609 | | |
| 7,957.17 | 7,900.00 | - | 7,900.00 | 18.98 | 23.68 | -6.69 | 729.55 | -479.52 | 1,042.22 | | 37.98 | 27.444 | | |



Anticollision Report



Company: ANADARKO PETROLEUM CORP.

Project: UINTAH COUNTY, UTAH (nad 27)

Reference Site: Bonanza 1023-10A PAD

Site Error: 0.00ft

Reference Well: Bonanza 1023-10H1BS

Well Error: 0.00ft

Reference Wellbore Bonanza 1023-10H1BS

Reference Design: Design #1

Local Co-ordinate Reference:

: Well Bonanza 1023-10H1BS

TVD Reference: WELL @ 5452.00ft (Original Well Elev)
MD Reference: WELL @ 5452.00ft (Original Well Elev)

North Reference: Tru

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

| uryou Dra | gram: 0-M | IWD | | | | | | | | | | | Offices Mall Firms | 0.00.0 |
|---------------------------|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---------------------------------|----------------------------|----------------------------|-----------------------------|-------------------------------|----------------------|--------------------|---------|
| urvey Pro Refer | | Offs | et | Semi Major | Axis | | | | Dista | ance | | | Offset Well Error: | 0.00 ft |
| leasured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbor +N/-S (ft) | re Centre +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 51.73 | 12.38 | 15.69 | 19.99 | | () | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.00 | 0.00 | 51.73 | 12.38 | 15.69 | 19.99 | | 0.18 | 108.471 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.32 | 0.32 | 51.73 | 12.38 | 15.69 | 19.99 | | 0.63 | 31.541 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.54 | 0.54 | 51.73 | 12.38 | 15.69 | 19.99 | | 1.08 | 18.454 | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 0.77 | 0.77 | 51.73 | 12.38 | 15.69 | 19.99 | | 1.53 | 13.042 | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 0.99 | 0.99 | 51.73 | 12.38 | 15.69 | 19.99 | | 1.98 | 10.085 | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.22 | 1.22 | 51.73 | 12.38 | 15.69 | 19.99 | 17.56 | 2.43 | 8.221 | | |
| 700.00 | 700.00 | 700.00 | 700.00 | 1.44 | 1.44 | 51.73 | 12.38 | 15.69 | 19.99 | 17.11 | 2.88 | 6.938 | | |
| 800.00 | 800.00 | 800.00 | 800.00 | 1.67 | 1.67 | 51.73 | 12.38 | 15.69 | 19.99 | 16.66 | 3.33 | 6.002 | | |
| 900.00 | 900.00 | 900.00 | 900.00 | 1.89 | 1.89 | 51.73 | 12.38 | 15.69 | 19.99 | | 3.78 | 5.288 | | |
| 1,000.00 | 1,000.00 | 1,000.00 | 1,000.00 | 2.12 | 2.12 | 51.73 | 12.38 | 15.69 | 19.99 | 15.76 | 4.23 | 4.726 | | |
| 1,100.00 | 1,100.00 | 1,100.00 | 1,100.00 | 2.34 | 2.34 | 51.73 | 12.38 | 15.69 | 19.99 | 15.31 | 4.68 | 4.272 | | |
| 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 | 2.56 | 2.56 | 51.73 | 12.38 | 15.69 | 19.99 | 14.86 | 5.13 | 3.898 | | |
| 1,300.00 | 1,300.00 | 1,300.00 | 1,300.00 | 2.79 | 2.79 | 51.73 | 12.38 | 15.69 | 19.99 | 14.41 | 5.58 | 3.584 | | |
| 1,400.00 | 1,400.00 | 1,400.00 | 1,400.00 | 3.01 | 3.01 | 51.73 | 12.38 | 15.69 | 19.99 | | 6.03 | 3.316 | | |
| 1,500.00 | 1,500.00 | 1,500.00 | 1,500.00 | 3.24 | 3.24 | 51.73 | 12.38 | 15.69 | 19.99 | 13.51 | 6.48 | 3.086 | | |
| 1,600.00 | 1,600.00 | 1,600.00 | 1,600.00 | 3.46 | 3.46 | 51.73 | 12.38 | 15.69 | 19.99 | 13.06 | 6.93 | 2.886 | | |
| 1,700.00 | 1,700.00 | 1,700.00 | 1,700.00 | 3.69 | 3.69 | 51.73 | 12.38 | 15.69 | 19.99 | 12.62 | 7.38 | 2.710 | | |
| 1,800.00 | 1,800.00 | 1,800.00 | 1,800.00 | 3.91 | 3.91 | 51.73 | 12.38 | 15.69 | 19.99 | 12.17 | 7.83 | 2.554 | | |
| 1,900.00 | 1,900.00 | 1,900.00 | 1,900.00 | 4.14 | 4.14 | 51.73 | 12.38 | 15.69 | 19.99 | 11.72 | 8.28 | 2.416 | | |
| 2,000.00 | 2,000.00 | 2,000.00 | 2,000.00 | 4.36 | 4.36 | 51.73 | 12.38 | 15.69 | 19.99 | 11.27 | 8.73 | 2.2910 | CC, ES, SF | |
| 2,100.00 | 2,099.98 | 2,099.96 | 2,099.94 | 4.56 | 4.58 | 177.42 | 13.71 | 14.57 | 21.75 | 12.61 | 9.14 | 2.379 | | |
| 2,200.00 | 2,199.84 | 2,199.56 | 2,199.40 | 4.75 | 4.81 | 167.05 | 17.68 | 11.20 | 27.68 | 18.14 | 9.53 | 2.903 | | |
| 2,300.00 | 2,299.45 | 2,298.44 | 2,297.90 | 4.94 | 5.03 | 157.33 | 24.22 | 5.64 | 38.67 | 28.74 | 9.93 | 3.896 | | |
| 2,400.00 | 2,398.70 | 2,396.25 | 2,394.98 | 5.14 | 5.26 | 150.47 | 33.24 | -2.01 | 54.93 | 44.60 | 10.33 | 5.317 | | |
| 2,500.00 | 2,497.47 | 2,492.66 | 2,490.23 | 5.37 | 5.50 | 145.94 | 44.60 | -11.66 | 76.28 | 65.53 | 10.75 | 7.096 | | |
| 2,600.00 | 2,595.62 | 2,587.37 | 2,583.26 | 5.62 | 5.76 | 142.91 | 58.12 | -23.14 | 102.49 | 91.31 | 11.19 | 9.162 | | |
| 2,700.00 | 2,693.06 | 2,681.56 | 2,675.26 | 5.92 | 6.04 | 140.92 | 73.54 | -36.23 | 133.08 | 121.44 | 11.65 | 11.425 | | |
| 2,800.00 | 2,789.64 | 2,775.82 | 2,767.25 | 6.25 | 6.34 | 140.18 | 89.20 | -49.52 | 166.47 | 154.34 | 12.13 | 13.721 | | |
| 2,901.48 | 2,886.67 | 2,870.50 | 2,859.66 | 6.65 | 6.66 | 140.18 | 104.92 | -62.88 | 202.93 | 190.29 | 12.64 | 16.057 | | |
| 3,000.00 | 2,980.36 | 2,961.92 | 2,948.88 | 7.08 | 6.98 | 140.80 | 120.11 | -75.77 | 239.60 | 226.39 | 13.21 | 18.135 | | |
| 3,100.00 | 3,075.45 | 3,054.71 | 3,039.44 | 7.55 | 7.32 | 141.26 | 135.52 | -88.85 | 276.83 | 263.01 | 13.82 | 20.032 | | |
| 3,200.00 | 3,170.54 | 3,147.50 | 3,130.00 | 8.04 | 7.66 | 141.62 | 150.93 | -101.94 | 314.08 | | 14.45 | 21.738 | | |
| 3,300.00 | 3,265.63 | 3,240.29 | 3,220.56 | 8.56 | 8.02 | 141.89 | 166.34 | -115.03 | 351.34 | 336.24 | 15.10 | 23.273 | | |
| 3,362.20 | 3,324.77 | 3,298.00 | 3,276.88 | 8.88 | 8.24 | 142.04 | 175.93 | -123.17 | 374.51 | | 15.51 | 24.152 | | |
| 3,400.00 | 3,360.77 | 3,333.13 | 3,311.17 | 9.07 | 8.38 | 142.24 | 181.76 | -128.12 | 388.46 | 372.69 | 15.77 | 24.632 | | |
| 3,500.00 | 3,456.55 | 3,426.59 | 3,402.38 | 9.49 | 8.75 | 142.57 | 197.29 | -141.30 | 424.03 | 407.58 | 16.45 | 25.772 | | |
| 3,600.00 | 3,553.04 | 3,520.75 | 3,494.28 | 9.90 | 9.13 | 142.67 | 212.93 | -154.58 | 457.65 | 440.51 | 17.14 | 26.697 | | |
| 3,700.00 | 3,650.19 | 3,615.55 | 3,586.81 | 10.30 | 9.52 | 142.58 | 228.67 | -167.95 | 489.32 | 471.49 | 17.83 | 27.438 | | |
| 3,800.00 | 3,747.92 | 3,710.93 | 3,679.89 | 10.68 | 9.92 | 142.34 | 244.51 | -181.40 | 519.04 | 500.52 | 18.52 | 28.025 | | |
| 3,900.00 | 3,846.18 | 3,813.54 | 3,780.20 | 11.04 | 10.30 | 141.97 | 260.98 | -195.38 | 546.39 | 527.21 | 19.18 | 28.489 | | |
| 4,000.00 | | 3,920.10 | 3,884.93 | 11.37 | 10.62 | 141.67 | 275.96 | -208.10 | 570.22 | | 19.77 | 28.843 | | |
| 4,100.00 | 4,043.98 | 4,028.11 | 3,991.61 | 11.68 | 10.93 | 141.42 | 288.87 | -219.06 | 590.39 | | 20.33 | 29.040 | | |
| 4,200.00 | 4,143.39 | 4,137.37 | 4,099.95 | 11.95 | 11.22 | 141.23 | 299.58 | -228.15 | 606.84 | 585.98 | 20.86 | 29.095 | | |
| 4,300.00 4,400.00 | 4,243.05 4,342.89 | 4,247.63 4,358.65 | 4,209.66 4,320.39 | 12.20 12.42 | 11.49 11.72 | 141.07 140.95 | 307.99 314.01 | -235.29 -240.41 | 619.51 628.35 | | 21.35 21.80 | 29.022 28.829 | | |
| | | | | | | | | | | | | | | |
| 4,500.00 | 4,442.84 | 4,470.16 | 4,431.80 | 12.61 | 11.93 | 140.86 | 317.60 | -243.45 | 633.33 | | 22.20 | 28.523 | | |
| 4,564.17 | 4,507.00 | 4,541.85 | 4,503.47 | 12.71 | 12.05 | 10.34 | 318.59 | -244.29 | 634.49 | | 22.44 | 28.278 | | |
| 4,600.00 | 4,542.83 | 4,581.21 | 4,542.83 | 12.77 | 12.12 | 10.33 | 318.70 | -244.39 | 634.57 | | 22.56 | 28.122 | | |
| 4,700.00 4,800.00 | 4,642.83 4,742.83 | 4,681.21 4,781.21 | 4,642.83 4,742.83 | 12.93 13.10 | 12.29 12.47 | 10.33 10.33 | 318.70 318.70 | -244.39 -244.39 | 634.57 634.57 | 611.63 611.25 | 22.94 23.32 | 27.664 27.214 | | |
| | 4,842.83 | 4,881.21 | | 13.27 | | | | | | | | | | |



Anticollision Report



Company: ANADARKO PETROLEUM CORP.

Project: UINTAH COUNTY, UTAH (nad 27) Reference Site: Bonanza 1023-10A PAD

Site Error: 0.00ft

Reference Well: Bonanza 1023-10H1BS

Well Error: 0.00ft

Reference Wellbore Bonanza 1023-10H1BS

Reference Design: Design #1

Local Co-ordinate Reference:

Well Bonanza 1023-10H1BS **TVD Reference:** WELL @ 5452.00ft (Original Well Elev)

MD Reference: WELL @ 5452.00ft (Original Well Elev)

North Reference:

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

| Offset D | esign | Bonana | za 1023- | 10A PAD - | Bonanz | za 1023-10 | A4DS - Bona | anza 1023 | -10A4DS | - Design | #1 | | Offset Site Error: | 0.00 ft |
|---------------------------|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|--------------------------------|----------------------------|----------------------------|-----------------------------|-------------------------------|----------------------|--------------------|---------|
| urvey Pro | gram: 0-M | | | | | | | | | <u> </u> | | | Offset Well Error: | 0.00 ft |
| Refer | ence | Offs | et | Semi Major | Axis | | | | Dista | ance | | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbo +N/-S (ft) | re Centre +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning | |
| 5,000.00 | 4,942.83 | 4,981.21 | 4,942.83 | 13.44 | 12.83 | 10.33 | 318.70 | -244.39 | 634.57 | 610.49 | 24.08 | 26.349 | | |
| 5,100.00 | 5,042.83 | 5,081.21 | 5,042.83 | 13.44 | 13.02 | 10.33 | 318.70 | -244.39 | 634.57 | 610.49 | 24.47 | 25.933 | | |
| 5,200.00 | 5,142.83 | 5,181.21 | 5,142.83 | 13.78 | 13.20 | 10.33 | 318.70 | -244.39 | 634.57 | 609.71 | 24.86 | 25.527 | | |
| 5,300.00 | 5.242.83 | 5.281.21 | 5,242.83 | 13.96 | 13.39 | 10.33 | 318.70 | -244.39 | 634.57 | 609.32 | 25.25 | 25.133 | | |
| 5,400.00 | 5,342.83 | 5,381.21 | 5,342.83 | 14.13 | 13.57 | 10.33 | 318.70 | -244.39 | 634.57 | 608.93 | 25.64 | 24.748 | | |
| 5,500.00 | 5,442.83 | 5,481.21 | 5,442.83 | 14.31 | 13.76 | 10.33 | 318.70 | -244.39 | 634.57 | 608.53 | 26.04 | 24.373 | | |
| 5,600.00 | 5,542.83 | 5,581.21 | 5,542.83 | 14.49 | 13.95 | 10.33 | 318.70 | -244.39 | 634.57 | 608.14 | 26.43 | 24.008 | | |
| 5,700.00 | 5,642.83 | 5,681.21 | 5,642.83 | 14.67 | 14.14 | 10.33 | 318.70 | -244.39 | 634.57 | 607.74 | 26.83 | 23.652 | | |
| 5,800.00 | 5,742.83 | 5,781.21 | 5,742.83 | 14.85 | 14.33 | 10.33 | 318.70 | -244.39 | 634.57 | 607.34 | 27.23 | 23.305 | | |
| 5,900.00 | 5,842.83 | 5,881.21 | 5,842.83 | 15.03 | 14.53 | 10.33 | 318.70 | -244.39 | 634.57 | 606.94 | 27.63 | 22.967 | | |
| 6,000.00 | 5,942.83 | 5,981.21 | 5,942.83 | 15.21 | 14.72 | 10.33 | 318.70 | -244.39 | 634.57 | 606.54 | 28.03 | 22.637 | | |
| 6,100.00 | 6.042.83 | 6,081.21 | 6.042.83 | 15.40 | 14.91 | 10.33 | 318.70 | -244.39 | 634.57 | 606.13 | 28.44 | 22.316 | | |
| 6,200.00 | 6,142.83 | 6,181.21 | 6,142.83 | 15.58 | 15.11 | 10.33 | 318.70 | -244.39 | 634.57 | 605.73 | 28.84 | 22.002 | | |
| 6,300.00 | 6,242.83 | 6,281.21 | 6,242.83 | 15.77 | 15.30 | 10.33 | 318.70 | -244.39 | 634.57 | 605.32 | 29.25 | 21.696 | | |
| 6,400.00 | 6,342.83 | 6,381.21 | 6,342.83 | 15.96 | 15.50 | 10.33 | 318.70 | -244.39 | 634.57 | 604.91 | 29.66 | 21.398 | | |
| 6,500.00 | 6,442.83 | 6,481.21 | 6,442.83 | 16.15 | 15.70 | 10.33 | 318.70 | -244.39 | 634.57 | 604.51 | 30.06 | 21.107 | | |
| 6,600.00 | 6,542.83 | 6,581.21 | 6,542.83 | 16.33 | 15.90 | 10.33 | 318.70 | -244.39 | 634.57 | 604.10 | 30.47 | 20.823 | | |
| 6,700.00 | 6,642.83 | 6,681.21 | 6,642.83 | 16.52 | 16.10 | 10.33 | 318.70 | -244.39 | 634.57 | 603.68 | 30.89 | 20.546 | | |
| 6,800.00 | 6,742.83 | 6,781.21 | 6,742.83 | 16.72 | 16.29 | 10.33 | 318.70 | -244.39 | 634.57 | 603.27 | 31.30 | 20.275 | | |
| 6,900.00 | 6,842.83 | 6,881.21 | 6,842.83 | 16.91 | 16.49 | 10.33 | 318.70 | -244.39 | 634.57 | 602.86 | 31.71 | 20.011 | | |
| 7,000.00 | 6,942.83 | 6,981.21 | 6,942.83 | 17.10 | 16.70 | 10.33 | 318.70 | -244.39 | 634.57 | 602.44 | 32.12 | 19.753 | | |
| 7,100.00 | 7,042.83 | 7,081.21 | 7,042.83 | 17.29 | 16.90 | 10.33 | 318.70 | -244.39 | 634.57 | 602.03 | 32.54 | 19.501 | | |
| 7,200.00 | 7,142.83 | 7,181.21 | 7,142.83 | 17.49 | 17.10 | 10.33 | 318.70 | -244.39 | 634.57 | 601.61 | 32.96 | 19.255 | | |
| 7,300.00 | 7,242.83 | 7,281.21 | 7,242.83 | 17.68 | 17.30 | 10.33 | 318.70 | -244.39 | 634.57 | 601.20 | 33.37 | 19.014 | | |
| 7,400.00 | 7,342.83 | 7,381.21 | 7,342.83 | 17.88 | 17.50 | 10.33 | 318.70 | -244.39 | 634.57 | 600.78 | 33.79 | 18.779 | | |
| 7,500.00 | 7,442.83 | 7,481.21 | 7,442.83 | 18.08 | 17.71 | 10.33 | 318.70 | -244.39 | 634.57 | 600.36 | 34.21 | 18.550 | | |
| 7,600.00 | 7,542.83 | 7,581.21 | 7,542.83 | 18.27 | 17.91 | 10.33 | 318.70 | -244.39 | 634.57 | 599.94 | 34.63 | 18.325 | | |
| 7,700.00 | 7,642.83 | 7,681.21 | 7,642.83 | 18.47 | 18.12 | 10.33 | 318.70 | -244.39 | 634.57 | 599.52 | 35.05 | 18.105 | | |
| 7,800.00 | 7,742.83 | 7,781.21 | 7,742.83 | 18.67 | 18.32 | 10.33 | 318.70 | -244.39 | 634.57 | 599.10 | 35.47 | 17.891 | | |
| 7,900.00 | 7,842.83 | 7,881.21 | 7,842.83 | 18.87 | 18.53 | 10.33 | 318.70 | -244.39 | 634.57 | 598.68 | 35.89 | 17.681 | | |
| 7,957.17 | 7,900.00 | 7,938.38 | 7,900.00 | 18.98 | 18.64 | 10.33 | 318.70 | -244.39 | 634.57 | 598.44 | 36.13 | 17.562 | | |



Anticollision Report

MD Reference:



Company: ANADARKO PETROLEUM CORP.

Project: UINTAH COUNTY, UTAH (nad 27)

Reference Site: Bonanza 1023-10A PAD

Site Error: 0.00ft

Reference Well: Bonanza 1023-10H1BS

Well Error: 0.00ft

Reference Wellbore Bonanza 1023-10H1BS

Reference Design: Design #1

Local Co-ordinate Reference:

Well Bonanza 1023-10H1BS **TVD Reference:**

WELL @ 5452.00ft (Original Well Elev) WELL @ 5452.00ft (Original Well Elev)

North Reference:

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

| Offset D | | | za 1023- | 10A PAD - | Bonan | za 1023-10 | H2DS - Bona | anza 1023 | -10H2DS | - Design | #1 | | Offset Site Error: | 0.00 ft |
|---------------------------|----------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|--------------------------------|----------------------------|----------------------------|----------|-------------------------------|--------|--------------------|---------|
| Survey Pro Refer | gram: 0-M ence | /IWD Offs | et | Semi Major | Axis | | | | Dista | ance | | | Offset Well Error: | 0.00 ft |
| leasured Depth (ft) | | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | | Highside Toolface (°) | Offset Wellbo +N/-S (ft) | re Centre +E/-W (ft) | Between Centres (ft) | Between | Minimum Separation (ft) | | Warning | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 50.66 | 25.50 | 31.11 | 40.22 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.09 | 0.09 | 50.66 | 25.50 | 31.11 | 40.22 | | 0.18 | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.32 | 0.32 | 50.66 | 25.50 | 31.11 | 40.22 | | | | | |
| 300.00 400.00 | 300.00 400.00 | 300.00 400.00 | 300.00 400.00 | 0.54 0.77 | 0.54 0.77 | 50.66 50.66 | 25.50 25.50 | 31.11 31.11 | 40.22 40.22 | | 1.08 1.53 | | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 0.99 | 0.77 | 50.66 | 25.50 | 31.11 | 40.22 | | 1.98 | | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.22 | 1.22 | 50.66 | 25.50 | 31.11 | 40.22 | 37.79 | 2.43 | 16.539 | | |
| 700.00 | 700.00 | 700.00 | 700.00 | 1.44 | 1.44 | 50.66 | 25.50 | 31.11 | 40.22 | 37.34 | 2.88 | 13.959 | | |
| 800.00 | 800.00 | 800.00 | 800.00 | 1.67 | 1.67 | 50.66 | 25.50 | 31.11 | 40.22 | 36.89 | 3.33 | 12.075 | | |
| 900.00 | 900.00 | 900.00 | 900.00 | 1.89 | 1.89 | 50.66 | 25.50 | 31.11 | 40.22 | 36.44 | 3.78 | 10.639 | | |
| 1,000.00 | 1,000.00 | 1,000.00 | 1,000.00 | 2.12 | 2.12 | 50.66 | 25.50 | 31.11 | 40.22 | 35.99 | 4.23 | 9.509 | | |
| 1,100.00 | 1,100.00 | 1,100.00 | 1,100.00 | 2.34 | 2.34 | 50.66 | 25.50 | 31.11 | 40.22 | 35.54 | 4.68 | 8.595 | | |
| 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 | 2.56 | 2.56 | 50.66 | 25.50 | 31.11 | 40.22 | | 5.13 | | | |
| 1,300.00 | 1,300.00 | | 1,300.00 | 2.79 | 2.79 | 50.66 | 25.50 | 31.11 | 40.22 | | 5.58 | | | |
| 1,400.00 1,500.00 | 1,400.00 1,500.00 | 1,400.00 1,500.00 | 1,400.00 1,500.00 | 3.01 3.24 | 3.01 3.24 | 50.66 50.66 | 25.50 25.50 | 31.11 31.11 | 40.22 40.22 | | 6.03 6.48 | | | |
| 1,600.00 | 1,600.00 | 1,600.00 | 1,600.00 | 3.46 | 3.46 | 50.66 | 25.50 | 31.11 | 40.22 | 33.29 | 6.93 | 5.806 | | |
| 1,700.00 | 1,700.00 | 1,700.00 | 1,700.00 | 3.69 | 3.69 | 50.66 | 25.50 | 31.11 | 40.22 | | | | | |
| 1,800.00 | 1,800.00 | | 1,800.00 | 3.09 | 3.91 | 50.66 | 25.50 | 31.11 | 40.22 | | | | | |
| 1,900.00 | 1,900.00 | | 1,900.00 | 4.14 | 4.14 | 50.66 | 25.50 | 31.11 | 40.22 | | | | | |
| 2,000.00 | | 2,000.00 | 2,000.00 | 4.36 | 4.36 | 50.66 | 25.50 | 31.11 | 40.22 | | | | | |
| 2,100.00 | 2,099.98 | 2,102.04 | 2,102.00 | 4.56 | 4.57 | -177.85 | 23.26 | 29.54 | 39.40 | 30.28 | 9.12 | 4.319 | | |
| 2,200.00 | 2,199.84 | 2,203.94 | 2,203.55 | 4.75 | 4.75 | -174.54 | 16.59 | 24.86 | 37.02 | 27.55 | 9.47 | 3.910 | | |
| 2,300.00 | 2,299.45 | 2,305.52 | 2,304.22 | 4.94 | 4.94 | -168.06 | 5.53 | 17.11 | 33.37 | 23.56 | 9.81 | 3.401 | | |
| 2,400.00 | | 2,406.65 | 2,403.59 | 5.14 | 5.17 | -156.58 | -9.82 | 6.35 | 29.19 | 19.01 | 10.17 | | | |
| 2,500.00 | 2,497.47 | 2,507.19 | 2,501.25 | 5.37 | 5.43 | -137.69 | -29.32 | -7.33 | 26.08 | 15.45 | 10.64 | 2.452 | | |
| 2,538.17 | 2,535.01 | | 2,538.00 | 5.46 | 5.55 | -128.47 | -37.83 | -13.29 | 25.74 | 14.87 | 10.88 | | CC, ES, SF | |
| 2,600.00 | 2,595.62 | | 2,596.84 | 5.62 | 5.75 | -112.48 | -52.83 | -23.80 | 26.79 | | | | | |
| 2,700.00 | 2,693.06 | | 2,690.00 | 5.92 | 6.14 | -89.42 | -80.13 | -42.95 | 33.23 | 21.19 | 12.04 | | | |
| 2,800.00 | 2,789.64 | 2,803.97 | 2,780.44 | 6.25 | 6.62 | -73.78 | -111.03 | -64.61 | 44.71 | | | | | |
| 2,901.48 | 2,886.67 | | 2,869.14 | 6.65 | 7.19 | -63.90 | -145.82 | -89.00 | 60.04 | 46.71 | | | | |
| 3,000.00 | | | 2,952.67 | 7.08 | 7.83 | -57.10 | -182.74 | -114.88 | 78.33 | | 13.96 | | | |
| 3,100.00 | | | 3,038.06 | 7.55 | 8.56 | -52.33 | -221.57 | -142.11 | 98.51 | | | | | |
| 3,200.00 | 3,170.54 | 3,192.62 | 3,123.45 | 8.04 | 9.32 | -49.19 | -260.40 | -169.33 | 119.13 | 103.82 | | | | |
| 3,300.00 | 3,265.63 | 3,290.30 3,351.05 | 3,208.84 | 8.56 | 10.12 | -46.98 45.91 | -299.23 | -196.56 | 139.98 | 123.96 | 16.03 | | | |
| 3,362.20 | 3,324.77 | , | 3,261.96 | 8.88 | 10.63 | -45.91 | -323.39 | -213.49 | 153.04 | 136.55 | | | | |
| 3,400.00 | 3,360.77 | 3,387.94 | 3,294.21 | 9.07 | 10.94 | -45.38 | -338.05 | -223.77 | 161.12 | 144.35 | | | | |
| 3,500.00 | 3,456.55 | | 3,379.22 | 9.49 | 11.77 | -43.86 | -376.71 | -250.88 | 183.84 | 166.38 | 17.46 | | | |
| 3,600.00 | | | | 9.90 | 12.61 | -42.25 40.71 | -415.21 | -277.87 | 208.57 | 190.47 | 18.10 | | | |
| | 3,650.19 3,747.92 | | 3,557.53 3,655.00 | 10.30 10.68 | 13.34 14.04 | -40.71 -39.56 | -455.43 -492.67 | -306.07 -332.17 | 233.34 256.13 | | | | | |
| 3,900.00 | 3,846.18 | 3,904.62 | 3,756.09 | 11.04 | 14.70 | -38.66 | -526.62 | -355.97 | 276.81 | 256.97 | 19.84 | 13.951 | | |
| 4,000.00 | | - | 3,860.54 | 11.37 | 15.32 | -37.96 | -556.99 | -377.27 | 295.28 | | | | | |
| 4,100.00 | | | 3,968.05 | 11.68 | 15.89 | -37.39 | -583.50 | -395.85 | 311.43 | 290.52 | | | | |
| 4,200.00 | | | 4,078.26 | 11.95 | 16.39 | -36.92 | -605.89 | -411.56 | 325.19 | | | | | |
| 4,300.00 | 4,243.05 | 4,355.99 | 4,190.77 | 12.20 | 16.82 | -36.54 | -623.94 | -424.21 | 336.48 | 314.62 | 21.86 | 15.393 | | |
| 4,400.00 | 4,342.89 | 4,471.54 | 4,305.12 | 12.42 | 17.18 | -36.23 | -637.45 | -433.68 | 345.25 | 322.98 | 22.27 | 15.504 | | |
| 4,500.00 | | | 4,420.84 | 12.61 | 17.46 | -35.97 | -646.25 | -439.85 | 351.45 | 328.81 | 22.63 | 15.527 | | |
| | 4,507.00 | 4,662.60 | 4,495.57 | 12.71 | 17.60 | -166.29 | -649.38 | -442.04 | 354.06 | 331.22 | 22.84 | 15.503 | | |
| 4,600.00 | | | 4,537.41 | 12.77 | 17.66 | -166.23 | -650.25 | -442.65 | 354.91 | | | | | |
| • | 4,642.83 | , | , | 12.93 | 17.79 | -166.21 | -650.50 | -442.83 | 355.16 | | | | | |
| 4,800.00 | 4,742.83 | 4,909.88 | 4,742.83 | 13.10 | 17.91 | -166.21 | -650.50 | -442.83 | 355.16 | 331.46 | 23.69 | 14.991 | | |



Anticollision Report



Company: ANADARKO PETROLEUM CORP.

Project: UINTAH COUNTY, UTAH (nad 27)

Reference Site: Bonanza 1023-10A PAD

Site Error: 0.00ft

Reference Well: Bonanza 1023-10H1BS

Well Error: 0.00ft

Reference Wellbore Bonanza 1023-10H1BS

Reference Design: Design #1

Local Co-ordinate Reference:

Well Bonanza 1023-10H1BS **TVD Reference:** WELL @ 5452.00ft (Original Well Elev)

MD Reference: WELL @ 5452.00ft (Original Well Elev)

North Reference:

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

| Offset D | esign | Bonan | za 1023- | 10A PAD - | Bonanz | za 1023-10 | H2DS - Bona | anza 1023 | -10H2DS | - Design | #1 | | Offset Site Error: | 0.00 ft |
|---------------------------|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|--------------------------------|----------------------------|----------------------------|-----------------------------|-------------------------------|----------------------|--------------------|---------|
| | gram: 0-M | | | | | | | | | | | | Offset Well Error: | 0.00 ft |
| Refer | | Offs | | Semi Major | | | | | Dista | | | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbo +N/-S (ft) | re Centre +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning | |
| 4,900.00 | 4,842.83 | 5,009.88 | 4,842.83 | 13.27 | 18.03 | -166.21 | -650.50 | -442.83 | 355.16 | 331.10 | 24.06 | 14.763 | | |
| 5,000.00 | 4,942.83 | 5,109.88 | 4,942.83 | 13.44 | 18.15 | -166.21 | -650.50 | -442.83 | 355.16 | 330.73 | 24.43 | 14.540 | | |
| 5,100.00 | 5,042.83 | 5,209.88 | 5,042.83 | 13.61 | 18.28 | -166.21 | -650.50 | -442.83 | 355.16 | 330.36 | 24.80 | 14.322 | | |
| 5,200.00 | 5,142.83 | 5,309.88 | 5,142.83 | 13.78 | 18.40 | -166.21 | -650.50 | -442.83 | 355.16 | 329.98 | 25.17 | 14.110 | | |
| 5,300.00 | 5,242.83 | 5,409.88 | 5,242.83 | 13.96 | 18.53 | -166.21 | -650.50 | -442.83 | 355.16 | 329.61 | 25.55 | 13.902 | | |
| 5,400.00 | 5,342.83 | 5,509.88 | 5,342.83 | 14.13 | 18.66 | -166.21 | -650.50 | -442.83 | 355.16 | 329.23 | 25.93 | 13.699 | | |
| 5,500.00 | 5,442.83 | 5,609.88 | 5,442.83 | 14.31 | 18.80 | -166.21 | -650.50 | -442.83 | 355.16 | 328.85 | 26.31 | 13.500 | | |
| 5,600.00 | 5,542.83 | 5,709.88 | 5,542.83 | 14.49 | 18.93 | -166.21 | -650.50 | -442.83 | 355.16 | 328.47 | 26.69 | 13.306 | | |
| 5,700.00 | 5,642.83 | 5,809.88 | 5,642.83 | 14.67 | 19.07 | -166.21 | -650.50 | -442.83 | 355.16 | 328.08 | 27.08 | 13.117 | | |
| 5,800.00 | 5,742.83 | 5,909.88 | 5,742.83 | 14.85 | 19.20 | -166.21 | -650.50 | -442.83 | 355.16 | 327.69 | 27.46 | 12.932 | | |
| 5,900.00 | 5,842.83 | 6,009.88 | 5,842.83 | 15.03 | 19.34 | -166.21 | -650.50 | -442.83 | 355.16 | 327.30 | 27.85 | 12.752 | | |
| 6,000.00 | 5,942.83 | 6,109.88 | 5,942.83 | 15.21 | 19.48 | -166.21 | -650.50 | -442.83 | 355.16 | 326.91 | 28.24 | 12.575 | | |
| 6,100.00 | 6,042.83 | 6,209.88 | 6,042.83 | 15.40 | 19.63 | -166.21 | -650.50 | -442.83 | 355.16 | 326.52 | 28.63 | 12.403 | | |
| 6,200.00 | 6,142.83 | 6,309.88 | 6,142.83 | 15.58 | 19.77 | -166.21 | -650.50 | -442.83 | 355.16 | 326.13 | 29.03 | 12.235 | | |
| 6,300.00 | 6,242.83 | 6,409.88 | 6,242.83 | 15.77 | 19.92 | -166.21 | -650.50 | -442.83 | 355.16 | 325.73 | 29.42 | 12.070 | | |
| 6,400.00 | 6,342.83 | 6,509.88 | 6,342.83 | 15.96 | 20.06 | -166.21 | -650.50 | -442.83 | 355.16 | 325.33 | 29.82 | 11.910 | | |
| 6,500.00 | 6,442.83 | 6,609.88 | 6,442.83 | 16.15 | 20.21 | -166.21 | -650.50 | -442.83 | 355.16 | 324.94 | 30.22 | 11.752 | | |
| 6,600.00 | 6,542.83 | 6,709.88 | 6,542.83 | 16.33 | 20.36 | -166.21 | -650.50 | -442.83 | 355.16 | 324.54 | 30.62 | 11.599 | | |
| 6,700.00 | 6,642.83 | 6,809.88 | 6,642.83 | 16.52 | 20.51 | -166.21 | -650.50 | -442.83 | 355.16 | 324.13 | 31.02 | 11.449 | | |
| 6,800.00 | 6,742.83 | 6,909.88 | 6,742.83 | 16.72 | 20.66 | -166.21 | -650.50 | -442.83 | 355.16 | 323.73 | 31.42 | 11.302 | | |
| 6,900.00 | 6,842.83 | 7,009.88 | 6,842.83 | 16.91 | 20.82 | -166.21 | -650.50 | -442.83 | 355.16 | 323.33 | 31.83 | 11.159 | | |
| 7,000.00 | 6,942.83 | 7,109.88 | 6,942.83 | 17.10 | 20.97 | -166.21 | -650.50 | -442.83 | 355.16 | 322.92 | 32.23 | 11.019 | | |
| 7,100.00 | 7,042.83 | 7,209.88 | 7,042.83 | 17.29 | 21.13 | -166.21 | -650.50 | -442.83 | 355.16 | 322.52 | 32.64 | 10.881 | | |
| 7,200.00 | 7,142.83 | 7,309.88 | 7,142.83 | 17.49 | 21.29 | -166.21 | -650.50 | -442.83 | 355.16 | 322.11 | 33.05 | 10.747 | | |
| 7,300.00 | 7,242.83 | 7,409.88 | 7,242.83 | 17.68 | 21.44 | -166.21 | -650.50 | -442.83 | 355.16 | 321.70 | 33.45 | 10.616 | | |
| 7,400.00 | 7,342.83 | 7,509.88 | 7,342.83 | 17.88 | 21.60 | -166.21 | -650.50 | -442.83 | 355.16 | 321.29 | 33.86 | 10.488 | | |
| 7,500.00 | 7,442.83 | 7,609.88 | 7,442.83 | 18.08 | 21.77 | -166.21 | -650.50 | -442.83 | 355.16 | 320.88 | 34.27 | 10.362 | | |
| 7,600.00 | 7,542.83 | 7,709.88 | 7,542.83 | 18.27 | 21.93 | -166.21 | -650.50 | -442.83 | 355.16 | 320.47 | 34.69 | 10.239 | | |
| 7,700.00 | 7,642.83 | 7,809.88 | 7,642.83 | 18.47 | 22.09 | -166.21 | -650.50 | -442.83 | 355.16 | 320.06 | 35.10 | 10.119 | | |
| 7,800.00 | 7,742.83 | 7,909.88 | 7,742.83 | 18.67 | 22.26 | -166.21 | -650.50 | -442.83 | 355.16 | 319.64 | 35.51 | 10.001 | | |
| 7,900.00 | 7,842.83 | 8,009.88 | 7,842.83 | 18.87 | 22.42 | -166.21 | -650.50 | -442.83 | 355.16 | 319.23 | 35.93 | 9.886 | | |
| 7,957.17 | 7,900.00 | 8,067.05 | 7,900.00 | 18.98 | 22.52 | -166.21 | -650.50 | -442.83 | 355.16 | 318.99 | 36.16 | 9.821 | | |



Anticollision Report

TVD Reference:

MD Reference:

North Reference:



Company: ANADARKO PETROLEUM CORP.

Project: UINTAH COUNTY, UTAH (nad 27)

Reference Site: Bonanza 1023-10A PAD

Site Error: 0.00ft

Reference Well: Bonanza 1023-10H1BS

Well Error: 0.00ft

Reference Wellbore Bonanza 1023-10H1BS

Reference Design: Design #1

Local Co-ordinate Reference:

erence: Well Bonanza 1023-10H1BS

WELL @ 5452.00ft (Original Well Elev)
WELL @ 5452.00ft (Original Well Elev)

True

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

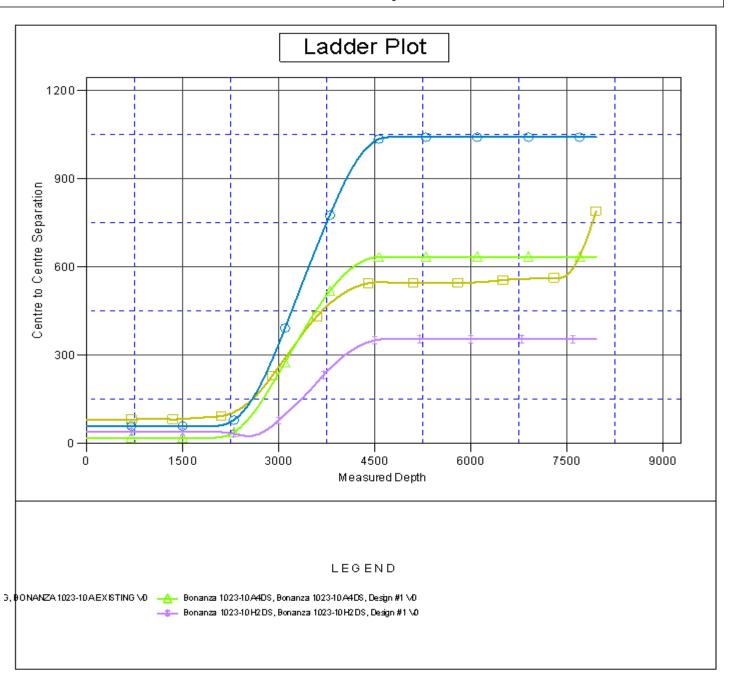
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 5452.00ft (Original Well Ele\Coordinates are relative to: Bonanza 1023-10H1BS

Offset Depths are relative to Offset Datum

Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 121

Central Meridian is 111° 0′ 0.000 W° Grid Convergence at Surface is: 1.09°





Anticollision Report



Company: ANADARKO PETROLEUM CORP.

Project: UINTAH COUNTY, UTAH (nad 27)

Reference Site: Bonanza 1023-10A PAD

Site Error: 0.00ft

Bonanza 1023-10H1BS Reference Well:

Well Error: 0.00ft

Reference Wellbore Bonanza 1023-10H1BS

Reference Design: Design #1 **Local Co-ordinate Reference:**

Well Bonanza 1023-10H1BS WELL @ 5452.00ft (Original Well Elev) **TVD Reference:**

WELL @ 5452.00ft (Original Well Elev) MD Reference:

North Reference:

Minimum Curvature **Survey Calculation Method:**

2.00 sigma Output errors are at

Database: EDM 2003.21 Single User Db

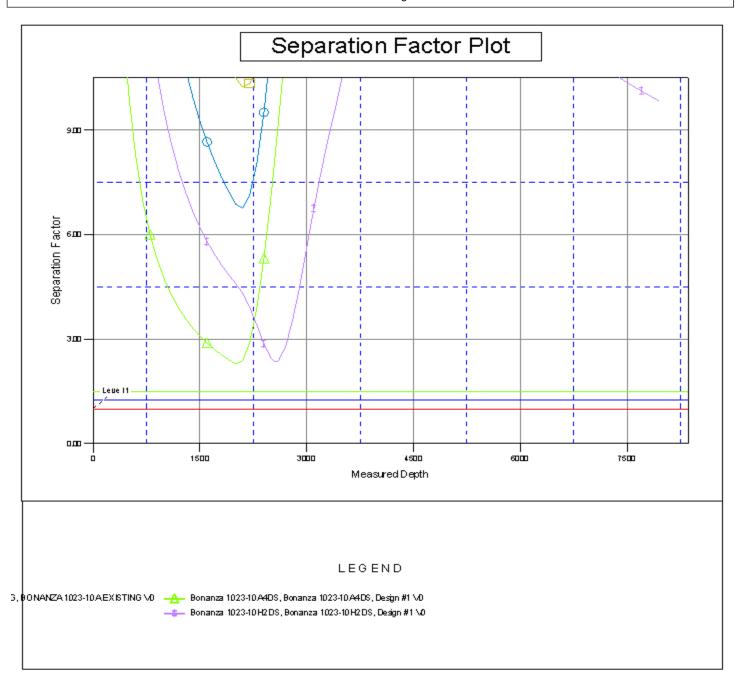
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 5452.00ft (Original Well Ele\Coordinates are relative to: Bonanza 1023-10H1BS

Offset Depths are relative to Offset Datum

Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N

Central Meridian is 111° 0' 0.000 W ° Grid Convergence at Surface is: 1.09°





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Bonanza 1023-10H1BS

Pad: Bonanza 1023-10A Surface: 1,199' FNL, 241' FEL (NE/4NE/4) BHL: 1,505' FNL 600' FEL (SE/4NE/4) Sec. 10 T10S R23E

> Uintah, Utah Mineral Lease: UTU 40736

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

| <u>Formation</u> | <u>Depth</u> | Resource |
|------------------|--------------|----------|
| Uinta | 0 – Surface | |
| Green River | 981' | |
| Birds Nest | 1,372' | Water |
| Mahogany | 1,871' | Water |
| Wasatch | 4,007' | Gas |
| Mesaverde | 5,849' | Gas |
| MVU2 | 6,818' | Gas |
| MVL1 | 7,359' | Gas |
| TVD | 7,900' | |
| TD | 7.957' | |

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

Evaluation Program:

Please refer to the attached Drilling Program.

7. <u>Abnormal Conditions</u>:

Maximum anticipated bottomhole pressure calculated at 7,957' TD, approximately equals 4,710 psi (calculated at 0.59 psi/foot).

Maximum anticipated surface pressure equals approximately 2,938 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Bonanza 1023-10H1BS

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

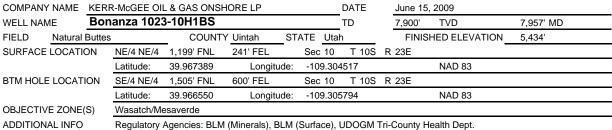
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

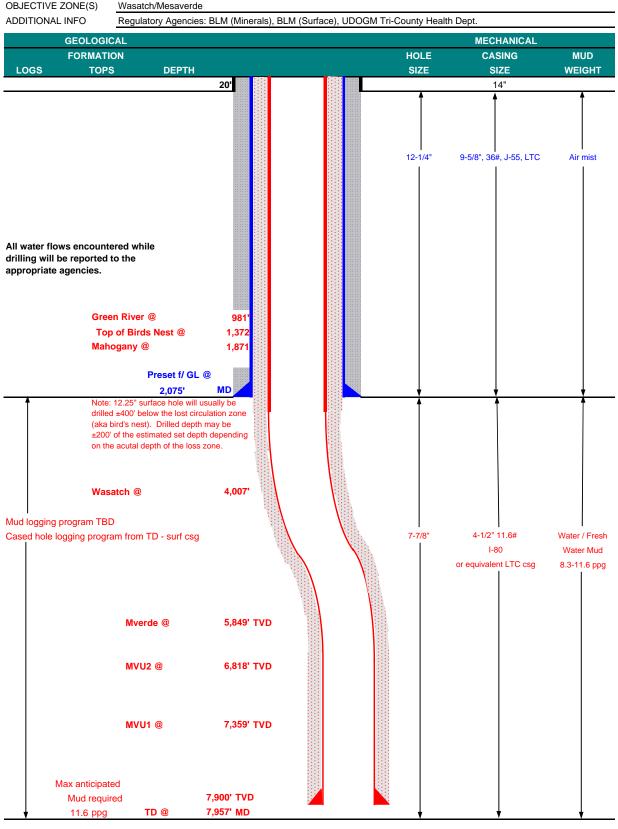
10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM







KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

| | | | | | | | | | DESIGN FACT | ORS |
|------------|--------|------|------|-------|-------|------|-------|-------|-------------|---------|
| | SIZE | INTE | RVAL | | WT. | GR. | CPLG. | BURST | COLLAPSE | TENSION |
| CONDUCTOR | 14" | 0 | -40' | | | | | | | |
| | | | | | | | | 3,520 | 2,020 | 453,000 |
| SURFACE | 9-5/8" | 0 | to | 2,075 | 36.00 | J-55 | LTC | 1.15 | 2.08 | 7.72 |
| | | | | | | | | 7,780 | 6,350 | 201,000 |
| PRODUCTION | 4-1/2" | 0 | to | 7,957 | 11.60 | I-80 | LTC | 2.57 | 1.33 | 2.50 |
| | | | | | | | | | | |

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

0.22 psi/ft = gradient for partially evac wellbore 11.6 (Burst Assumptions: TD = ppg) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water) (Collapse Assumption: Fully Evacuated Casing, Max MW)

2,938 psi MASP

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 4,710 psi

CEMENT PROGRAM

| | FT. OF FILL | DESCRIPTION | SACKS | EXCESS | WEIGHT | YIELD | | |
|--------------------|---------------|--|---------|--------|--------|-------|--|--|
| SURFACE LEA | D 500' | Premium cmt + 2% CaCl | 215 | 60% | 15.60 | 1.18 | | |
| Option 1 | | + 0.25 pps flocele | | | | | | |
| TOP OUT CMT (6 job | s) 1,200' | 20 gals sodium silicate + Premium cmt 380 | | 0% | 15.60 | 1.18 | | |
| | | + 2% CaCl + 0.25 pps flocele | | | | | | |
| | | Premium cmt + 2% CaCl | | | | | | |
| SURFACE | | NOTE: If well will circulate water to surface, option 2 will be utilized | | | | | | |
| Option 2 LEA | D 1,575' | 65/35 Poz + 6% Gel + 10 pps gilsonite | 370 | 35% | 12.60 | 1.81 | | |
| | | + 0.25 pps Flocele + 3% salt BWOW | | | | | | |
| TA | IL 500' | Premium cmt + 2% CaCl | 180 | 35% | 15.60 | 1.18 | | |
| | | + 0.25 pps flocele | | | | | | |
| TOP OUT CM | □ as required | Premium cmt + 2% CaCl | as req. | | 15.60 | 1.18 | | |
| | | | | | | | | |
| PRODUCTION LEA | .D 3,507' | Premium Lite II + 3% KCl + 0.25 pps | 330 | 40% | 11.00 | 3.38 | | |
| | | celloflake + 5 pps gilsonite + 10% gel | | | | | | |
| | | + 0.5% extender | | | | | | |
| TA | ıL 4,450' | 50/50 Poz/G + 10% salt + 2% gel | 1,090 | 40% | 14.30 | 1.31 | | |
| | | + 0.1% R-3 | | | | | | |

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe **PRODUCTION** Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

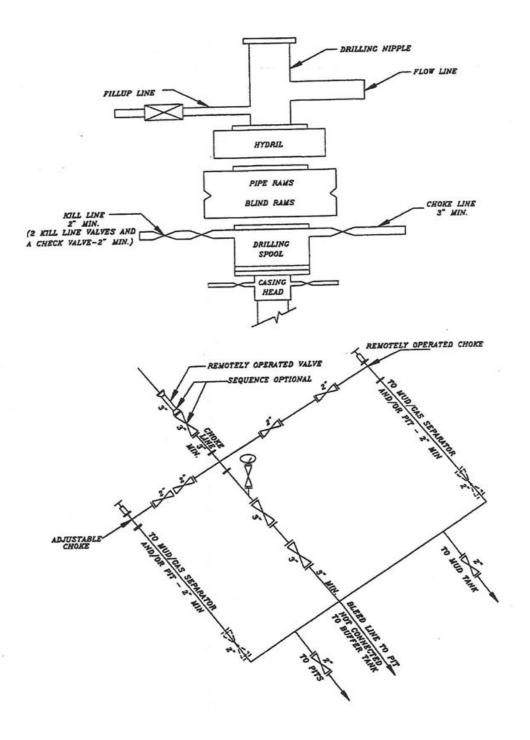
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

| Surveys will be | taken a | at 1 000' | minimum | intervals |
|------------------|----------|-----------|---------|-------------|
| Cui veyo wiii be | tantonic | 1,000 | | mitor vaio. |

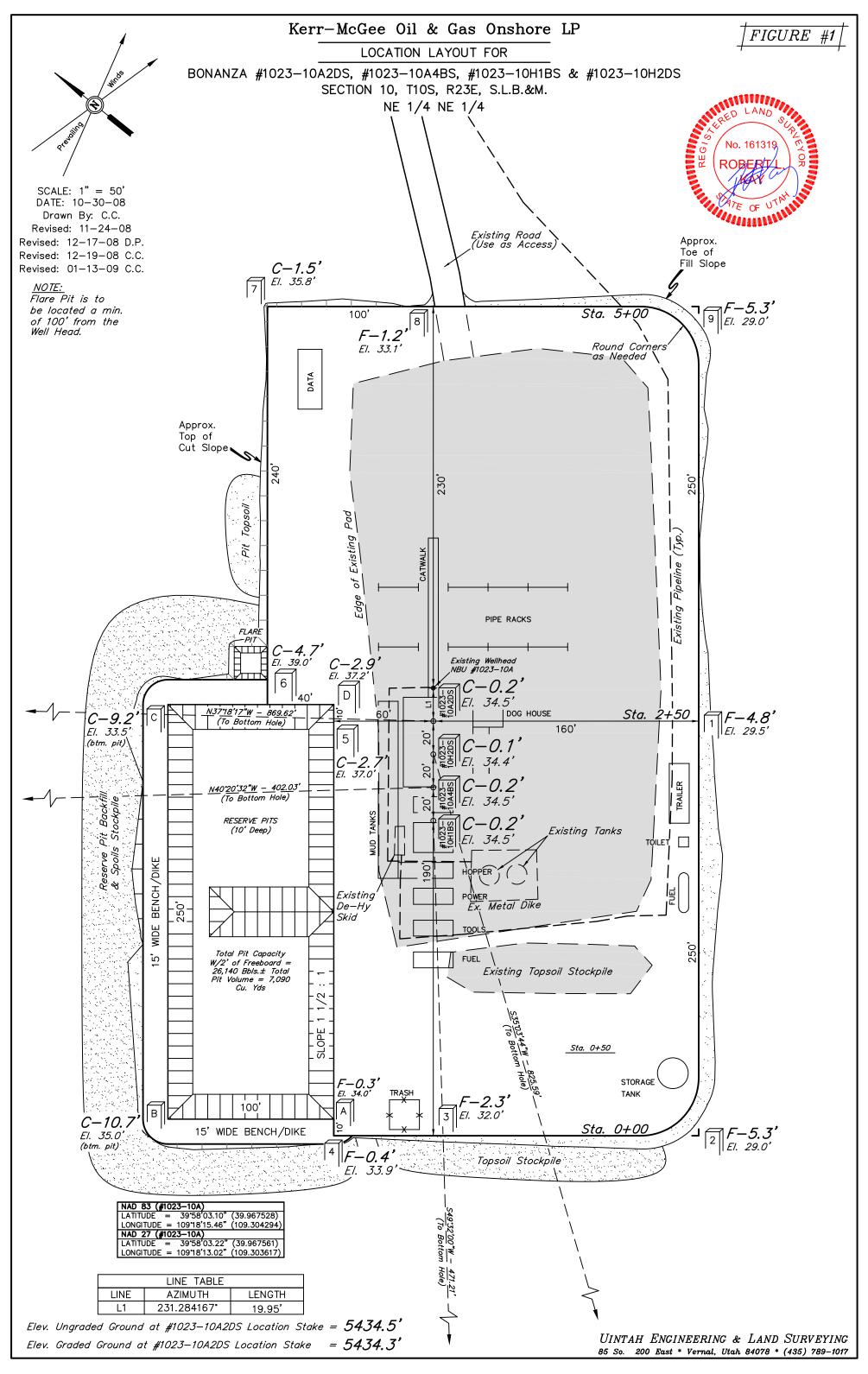
| | ost rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized. | | | | | |
|----------|--|-----------------------------|-------|--|--|--|
| DRILLING | ENGINEER: | | DATE: | | | |
| | | John Huycke / Emile Goodwin | | | | |
| DRILLING | SUPERINTENDENT: | | DATE: | | | |
| | | John Merkel / Lovel Young | | | | |

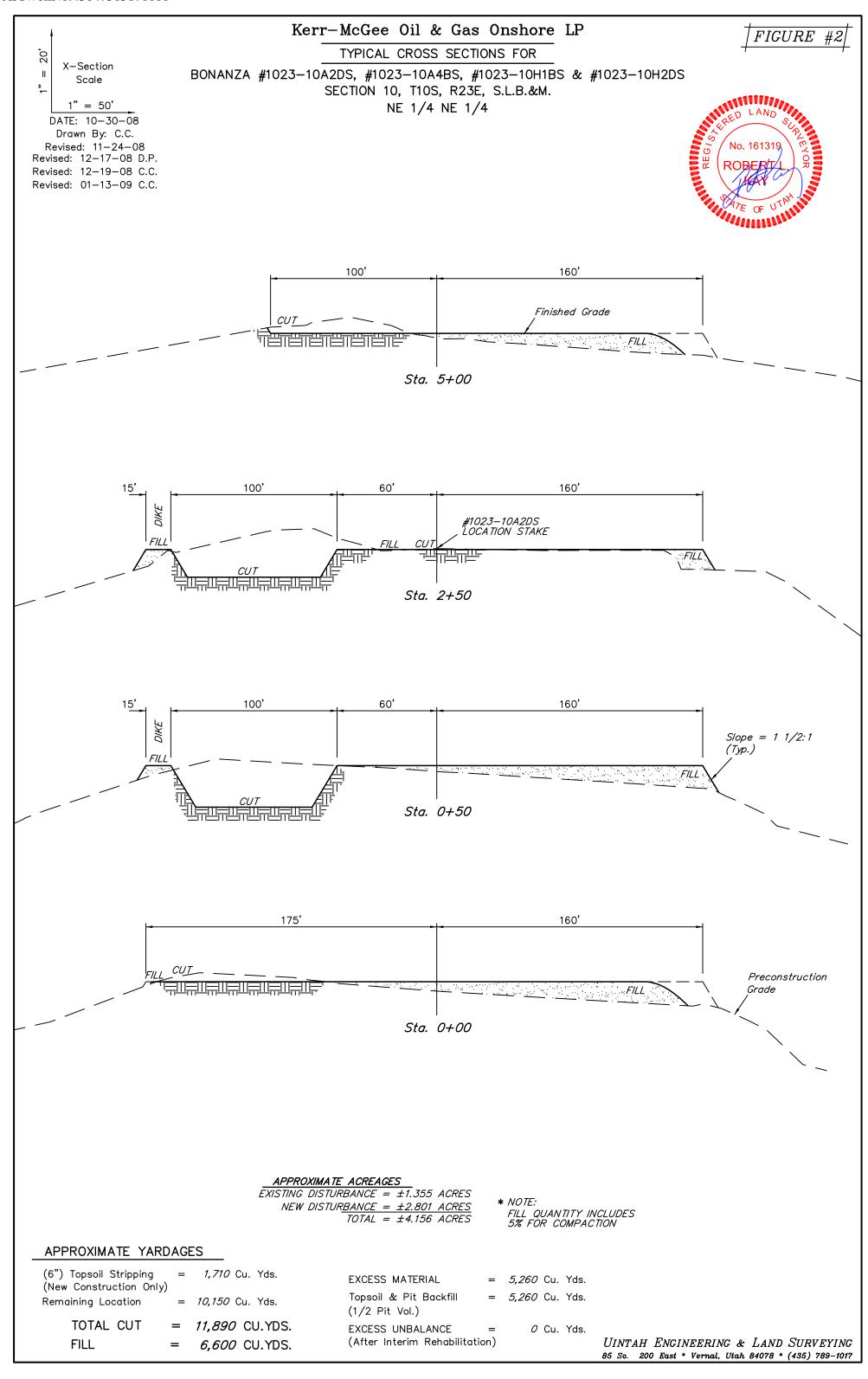
^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

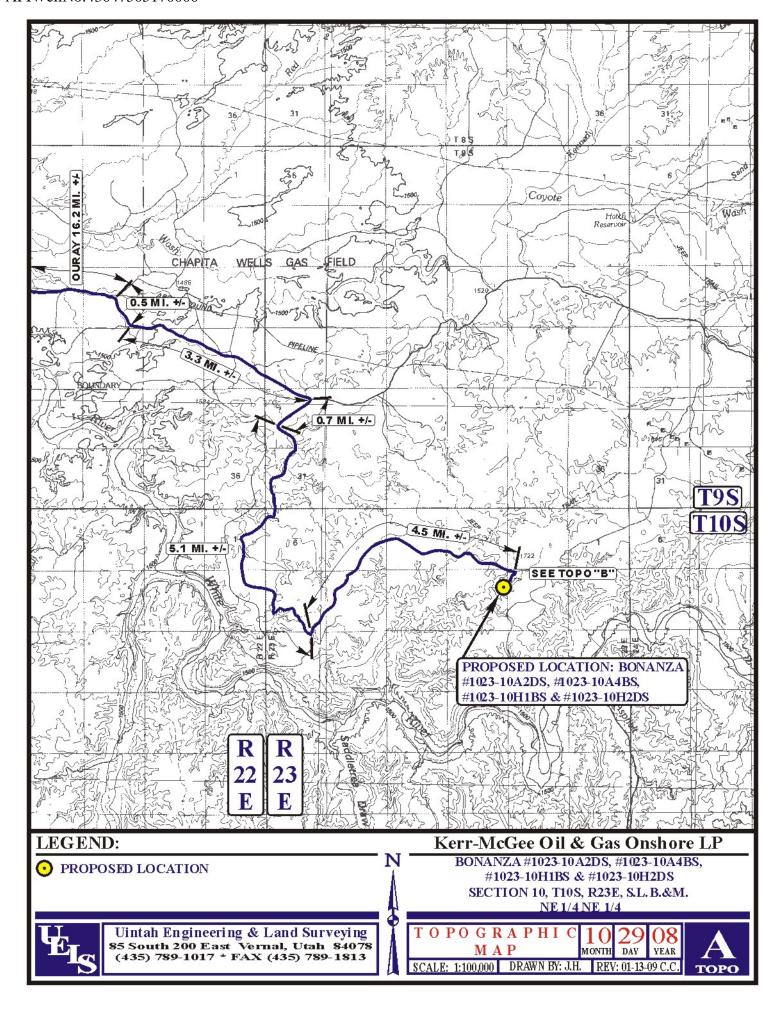
EXHIBIT A Bonanza 1023-10H1BS

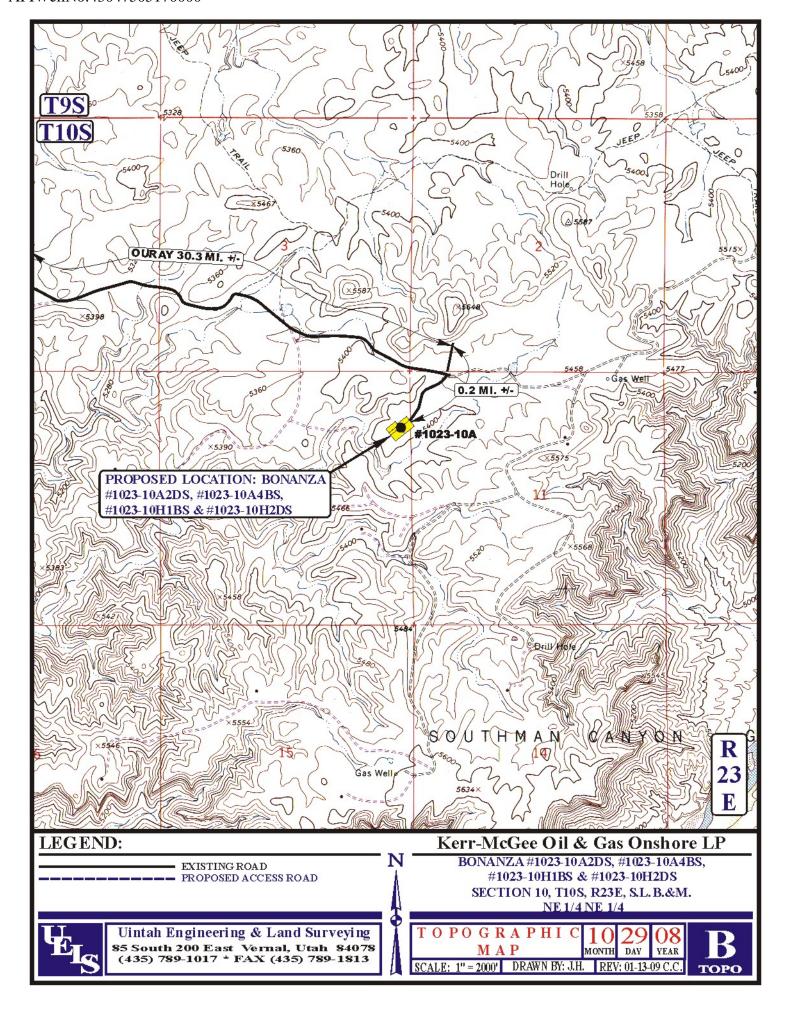


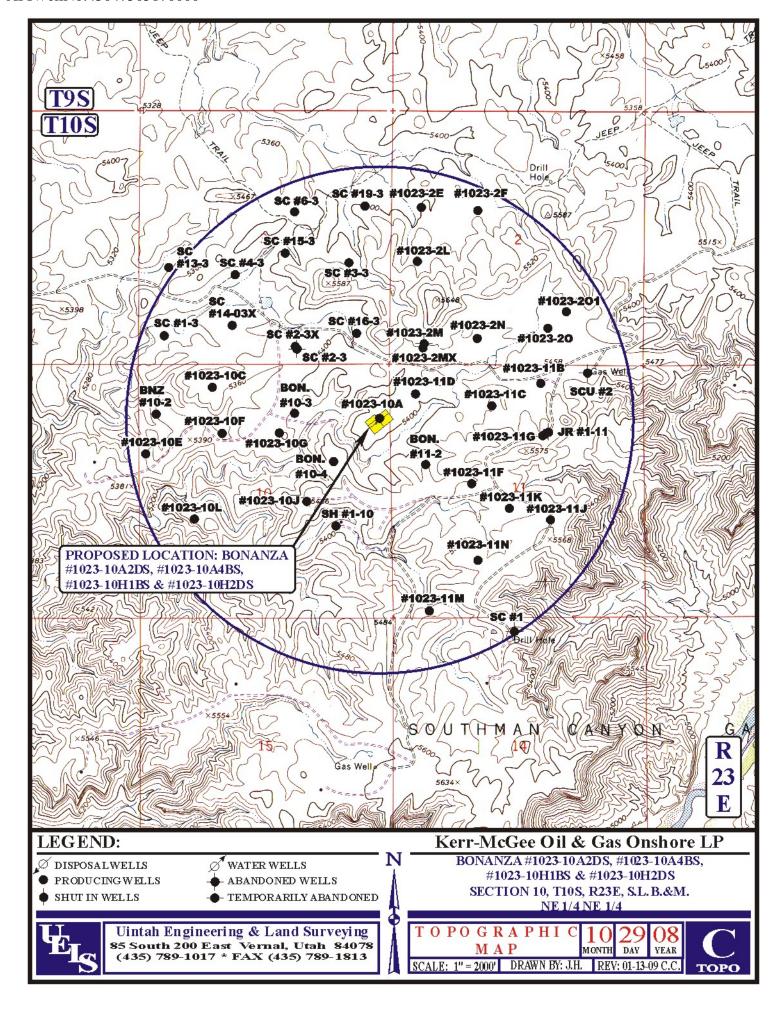
SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

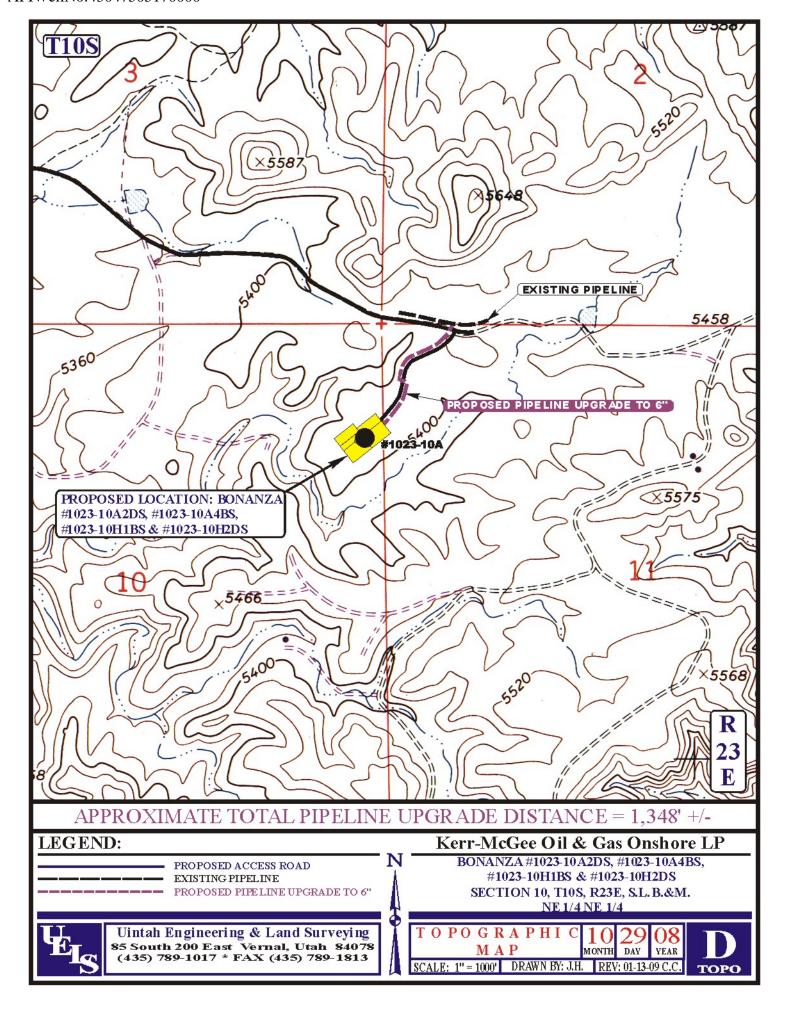












'APIWellNo:4304**K0547000McGee Oil & Gas Onshore LP** BONANZA#1023-10A2DS, #1023-10A4BS,

#1023-10H1BS & #1023-10H2DS LOCATED IN UINTAH COUNTY, UTAH

SECTION 10, T10S, R23E, S.L.B.&M.



PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKES

CAMERA ANGLE: SOUTHEASTERLY



PHOTO: VIEW OF EXISTING ROAD

CAMERA ANGLE: SOUTHWESTERLY

Uintah Engineering & Land Surveying 85 South 200 East Vernal, Utah 84078 (435) 789-1017 * FAX (435) 789-1813





Kerr-McGee Oil & Gas Onshore LP BONANZA #1023-10A2DS, #1023-10A4BS, #1023-10H1BS & #1023-10H2DS SECTION 10, T10S, R23E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 0.3 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 12.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 1.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 1.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 3.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 0.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 5.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY, THEN EASTERLY DIRECTION APPROXIMATELY 4.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST: TURN RIGHT AND PROCEED IN A SOUTHWESTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE EXISTING #1023-10A PAD AND THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 61.5 MILES.

Bonanza 1023-10A2DS

Surface: 1,161' FNL, 194' FEL (NE/4NE/4) BHL: 470' FNL 720' FEL (NE/4NE/4)

Bonanza 1023-10A4BS

Surface: 1,186' FNL, 225' FEL (NE/4NE/4) BHL: 880' FNL 485' FEL (NE/4NE/4)

Bonanza 1023-10H1BS

Surface: 1,199' FNL, 241' FEL (NE/4NE/4) BHL: 1,505' FNL 600' FEL (SE/4NE/4)

Bonanza 1023-10H2DS

Surface: 1,174' FNL, 210' FEL (NE/4NE/4) BHL: 1,850' FNL 685' FEL (SE/4NE/4)

> Pad: Bonanza 1023-10A Sec. 10 T10S R23E

Uintah, Utah Mineral Lease: UTU 40736

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN SUBMITTED WITH SITE-SPECIFIC INFORMATION

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) documents. An NOS was submitted in December, 2008 showing the surface locations in NE/4 NE/4 of Section 10 T10S R23E. At the time the NOS was submitted the following three wells had the following names:

- Bonanza 1023-10A4BS fka Bonanza 1023-10B4BS
- Bonanza 1023-10A2DS fka Bonanza 1023-10B4AS
- Bonanza 1023-10H2DS fka Bonanza 1023-10H2CS

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BLM-Vernal Field Office.

An on-site meeting was held on February 3, 2009. Present were:

- Verlyn Pindell, Dave Gordon, Scott Ackerman, Karl Wright BLM;
- David Kay Uintah Engineering & Land Surveying;
- Kolby Kay 609 Consulting, LLC
- Tony Kazeck, Clay Einerson, Raleen White, Ramey Hoopes, Grizz Oleen, Charles Chase and Spencer Biddle Kerr-McGee.

Directional Drilling:

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

1. Existing Roads:

- A) Refer to Topo Map A for directions to the location.
- B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

2. Planned Access Roads:

See MDP for additional details on road construction.

No new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

3. <u>Location of Existing Wells Within a 1-Mile Radius:</u>

Please refer to Topo Map C.

4. Location of Existing and Proposed Facilities:

See MDP for additional details on Existing and Proposed Facilities.

The following guidelines will apply if the well is productive.

Approximately $\pm 1,348$ ' of existing pipeline needs to be upgraded to 6". Refer to Topo D for the existing pipeline. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place

5. <u>Location and Type of Water Supply:</u>

See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, Application number 53617. Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

6. Source of Construction Materials:

See MDP for additional details on Source of Construction Materials.

7. Methods of Handling Waste Materials:

See MDP for additional details on Methods of Handling Waste Materials.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E

MC&MC in Sec. 12 T6S R19E

Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

8. <u>Ancillary Facilities</u>:

See MDP for additional details on Ancillary Facilities.

None are anticipated.

9. Well Site Layout: (See Location Layout Diagram)

See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

10. Plans for Reclamation of the Surface:

See MDP for additional details on Plans for Reclamation of the Surface.

11. Surface/Mineral Ownership:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

12. Other Information:

See MDP for additional details on Other Information.

'APIWellNo:43047505170000'

13. Lessee's or Operators' Representative & Certification:

Kathy Schneebeck Dulnoan Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6007 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720-929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

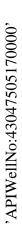
The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

| Koch Schille Doch | June 18, 2009 |
|--------------------------|---------------|
| Kathy Schneebeck Dulnoan | Date |





Kerr-McGee Oil & Gas Omihore LP P O Box 173779 Denver CO 80217-3779

April 7, 2009

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Exception Location R649-3-3 and Directional Drilling R649-3-11
Bonanza 1023-10H1BS
T10S- R23E
Section 10: NENE/SENE
1199' FNL, 241' FEL (surface)
1505' FNL, 600' FEL (bottom hole)
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-3 and Rule R649-3-11 pertaining to the Exception to Location and Sitting of Wells.

- Kerr-McGee's Bonanza 1023-10H1BS is located within the area covered by Docket No. 2008-011
 authorizing the equivalent of an approximate 10-acre well density pattern, and requiring approval for wells
 drilled at an exception location and wells drilled directionally in accordance with the referenced rules.
- Kerr-McGee is permitting this well at this location and as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing roads and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire
 directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to Rule R6493-3 and Rule R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Jessy Pink Landman

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S 43 PROPOSED WELL LOCATIONS (T10S, R23E, SECTIONS 5, 6, 7, 8, AND 10) UINTAH COUNTY, UTAH

By:

Nicole Shelnut

Prepared For:

Bureau of Land Management Vernal Field Office

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP 1368 South 1200 East Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc. P.O. Box 219 Moab, Utah 84532

MOAC Report No. 08-331

February 26, 2009

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

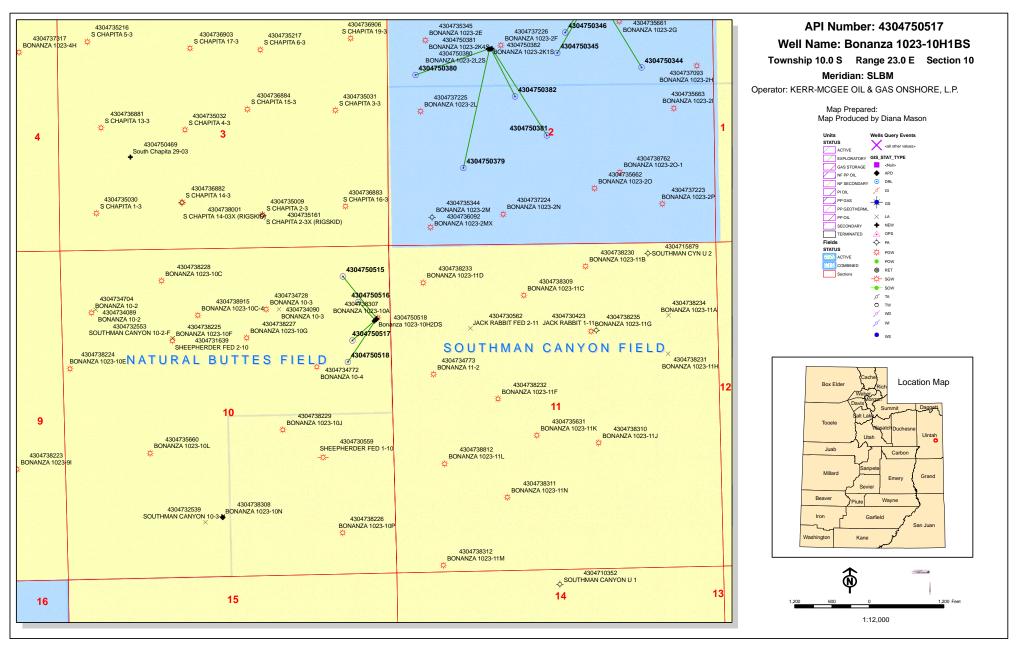
Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Multi-Well Pads, Access Road, Pipeline, Pipeline Re-Route and Upgrade for "Bonanza #1023-9B3BS, 9B3CS, 9H2BS & 9H2CS and #1023-10A2DS, A4BS, H1BS, & H2DS" (Sec. 9-11, T 10 S, R 23 E)

Asphalt Wash Topographic Quadrangle Uintah County, Utah

March 16, 2009

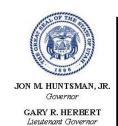
Prepared by Stephen D. Sandau Paleontologist for Intermountain Paleo-Consulting P. O. Box 1125 Vernal, Utah 84078



WORKSHEET APPLICATION FOR PERMIT TO DRILL

| APD RECEIVED: | 6/19/2009 | | API NO. ASSIGNED: | 43047505170000 |
|-------------------------------|---------------------|--------------------------|--------------------------|----------------|
| WELL NAME: | Bonanza 1023-10H1BS | 5 | | |
| OPERATOR: | KERR-MCGEE OIL & GA | AS ONSHORE, L.P. (N2995) | PHONE NUMBER: | 720 929-6156 |
| CONTACT: | Danielle Piernot | | | |
| PROPOSED LOCATION: | NENE 10 100S 230E | | Permit Tech Review: | |
| SURFACE: | 1199 FNL 0241 FEL | | Engineering Review: | |
| воттом: | 1505 FNL 0600 FEL | | Geology Review: | |
| COUNTY: | UINTAH | | | |
| LATITUDE: | 39.96748 | | LONGITUDE: | -109.30405 |
| UTM SURF EASTINGS: | 644842.00 | | NORTHINGS: | 4425315.00 |
| FIELD NAME: | NATURAL BUTTES | | | |
| LEASE TYPE: | 1 - Federal | | | |
| LEASE NUMBER: | UTU 40736 PR | ROPOSED PRODUCING FORM | ATION(S): WASATCH-MES | SA VERDE |
| SURFACE OWNER: | 1 - Federal | | COALBED METHANE: | NO |
| RECEIVED AND/OR REVIE | :WED: | LOCATION AND SITING |): | |
| PLAT | | R649-2-3. | | |
| ▶ Bond: FEDERAL - WYB | 000291 | Unit: | | |
| Potash | | R649-3-2. General | | |
| Oil Shale 190-5 | | | | |
| Oil Shale 190-3 | | R649-3-3. Exception | on | |
| Oil Shale 190-13 | | Drilling Unit | | |
| ✓ Water Permit: Permit | #43-8496 | Board Cause No: | Cause 179-14 | |
| RDCC Review: | | Effective Date: 6 | /12/2008 | |
| Fee Surface Agreeme | ent | Siting: 460' fr ext | . drilling unit boundary | |
| ✓ Intent to Commingle | | | onal Drill | |
| Commingling Approved | i . | | | |
| Comments: Presite Comments: | ompleted | | | |
| | | | | |
| Stipulations: 3 - Com | mingling - ddoucet | | | |

3 - Commingling - ddoucet 4 - Federal Approval - dmason 15 - Directional - dmason API Well No: 43047505170000



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA

Permit To Drill

Well Name: Bonanza 1023-10H1BS

API Well Number: 43047505170000

Lease Number: UTU 40736 Surface Owner: FEDERAL Approval Date: 6/30/2009

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 179-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 179-14 commingling the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during

API Well No: 43047505170000

drilling of this well:

• Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

Gil Hunt

Associate Director, Oil & Gas

Die Hunt

RECEIVE

UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

JUN 26 2009

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

Lease Serial No. UTU40736

| APPLICATION FOR PERMIT | TO DRILL OR REENTE LV | 6. If Indian, Allottee or Tri | ibe Name |
|--|---|---|----------------------|
| 1a. Type of Work: ☑ DRILL ☐ REENTER | | 7. If Unit or CA Agreemen UTU60774 | nt, Name and No. |
| 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Ot | | 8. Lease Name and Well N BONANZA 1023-10H1 | |
| KERR MCGEE OIL & GAS ONSHOR Gail: Danielle | | 9. API Well No. 43-047-5 | 0517 |
| 3a. Address 1368 SOUTH 1200 EAST VERNAL, UT 84078 | 3b. Phone No. (include area code) Ph: 720-929-6156 Fx: 720-929-7156 | 10. Field and Pool, or Expl NATURAL BUTTES | loratory |
| 4. Location of Well (Report location clearly and in accorded | ance with any State requirements.*) | 11. Sec., T., R., M., or Blk | and Survey or Area |
| At surface NENE 1199FNL 241FEL 3 At proposed prod. zone SENE 1505FNL 600FEL 3 | 9.96739 N Lat, 109.30452 W Lon | Sec 10 T10S R23E SME: BLM | Mer SLB |
| | | | |
| 14. Distance in miles and direction from nearest town or post APPROXIMATELY 30 MILES SOUTHEAST OF | | 12. County or Parish UINTAH | 13. State UT |
| 15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig, unit line, if any) | 16. No. of Acres in Lease | 17. Spacing Unit dedicated | to this well |
| 600 FEET | | 320.00 | |
| Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. | 19. Proposed Depth | 20. BLM/BIA Bond No. or | ı file |
| APPROXIMATELY 470 FEET | 0 MD | WYB000291 | : |
| 21. Elevations (Show whether DF, KB, RT, GL, etc. 5434 GL | 22. Approximate date work will start 07/14/2009 | 23. Estimated duration 60-90 DAYS | |
| | 24. Attachments | | |
| The following, completed in accordance with the requirements of | of Onshore Oil and Gas Order No. 1, shall be attached to | this form: | |
| Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Of | tem Lands, the fice). 4: Bond to cover the operation Item 20 above). 5. Operator certification 6. Such other site specific in authorized officer. | | |
| 25. Signature (Electronic Submission) | Name (Printed/Typed) DANIELLE E PIERNOT Ph: 720-929-61 | 156 | Date 06/19/2009 |
| Title REGULATORY ANALYST | | | |
| Approved by (Signature) | Name (Printed/Typed) | | Date |
| At chaning thoward | Stephanie T Howard | | 12-1-09 |
| Lands & Mineral Resources | VERNAL FIELD OFFICE | | • |
| pplication approval does not warrant or certify the applicant hoperations thereon. onditions of approval, if any, are attached. | olds legal or equitable title to those rights in the subject | lease which would entitle the | applicant to conduct |
| itle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, tates any false, fictitious or fraudulent statements or representate | make it a crime for any person knowingly and willfully tions as to any matter within its jurisdiction. | to make to any depiture or | graph the United |
| | | DEC 2 | 2009 |
| Additional Operator Remarks (see next page) | NOTICE OF APPROVAL | DIV OF OU GA | |

Electronic Submission #71167 verified by the BLM Well Information System FOIL, GAS & MINING For KERR MCGEE OIL & GAS ONSHORE L, sent to the Vernal Committed to AFMSS for processing by GAIL JENKINS on 06/22/2009 (09GXJ5008AE),

CONDITIONS OF APPROVAL ATTACHED

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED

NOS: 12-11-2008 (Bouarya U95XS0312A



UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE** 170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

API No:

Kerr McGee Oil and Gas Onshore LP

Bonanza 1023-10H1BS

43-047-50517

Location: Lease No: **NENE. Sec.10.T10S R23E**

UTU-40736

Agreement:

CA-CR5

OFFICE NUMBER:

(435) 781-4400

OFFICE FAX NUMBER:

(435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit was processed using a 390 CX tied to NEPA approved 10/31/2008. Therefore, this permit is approved for a two (2) year period OR until lease expiration OR the well must be spud by 10/31/2013 (5 years from the NEPA approval date), whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

| Location Construction (Notify Environmental Scientist) | - | Forty-Eight (48) hours prior to construction of location and access roads. |
|--|---|--|
| Location Completion (Notify Environmental Scientist) | - | Prior to moving on the drilling rig. |
| Spud Notice (Notify Petroleum Engineer) | - | Twenty-Four (24) hours prior to spudding the well. |
| Casing String & Cementing (Notify Supv. Petroleum Tech.) | - | Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut vn opreport@blm.gov. |
| BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.) | _ | Twenty-Four (24) hours prior to initiating pressure tests. |
| First Production Notice (Notify Petroleum Engineer) | - | Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days. RECFIVED |

DEC 2 1 2009

Page 2 of 6 Well: Bonanza 1023-10H1BS 11/4/2009

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
 work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
 mitigation may be necessary for the discovered paleontologic material before construction can
 continue.

SITE SPECIFIC CONDITIONS OF APPROVAL

 The following seed mix will be used for Interim Reclamation Interim Reclamation seed mix

| THE THE TABLE THE TABLE THE TABLE | | |
|-----------------------------------|--------------------------------|--------------|
| Ephraim crested wheatgrass | Agropyron cristatum v. Epharim | 1 lbs. /acre |
| bottlebrush squirreltail | Elymus elymoides | 1 lbs. /acre |
| Siberian wheatgrass | Agropyron fragile | 1 lbs. /acre |
| western wheatgrass | Agropyron smithii | 1 lbs. /acre |
| scarlet globemallow | Spaeralcea coccinea | 1 lbs. /acre |
| shadscale | Atriplex confertifolia | 2 lbs. /acre |
| fourwing saltbush | Atriplex canescens | 2 lbs. /acre |
| | | |

Seed shall be applied with a rangeland drill, unless topography and /or rockiness precludes the use of equipment. See shall be applied between August 15 and ground freezing. All see rates are in terms of Pure Live Seed. Operator shall notify the Authorized Officer when seeding has commenced, and shall retain all seed tags.

- The operator will control noxious weeds along the well pad, access road, and the pipeline route by spraying or mechanical removal. On BLM administered land, a Pesticide Use Proposal (PUP) will be submitted and approved prior to the application of herbicides or pesticides or possibly hazardous chemicals.
- All permanent (on-site six months or longer), above ground structures constructed or installed, including pumping units, would be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee. All facilities would be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) would be excluded. The requested color is Shadow Gray as determined during the on-site inspection.
- As discussed on the onsite conducted on February 3, 2009 the pit shall be lined with double felt

DEC 2 1 2009

Page 3 of 6 Well: Bonanza 1023-10H1BS 11/4/2009

DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

RECEIVED

A Gama Ray Log shall be run from TD to surface.

DEC 2 1 2009

Variances Granted:

DIV. OF OIL, GAS & MINING

Air Drilling:

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for two truck/trailer mounted air compressors located within 40 feet from the well bore and 60' from the blooie line.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for kill fluid.
- Automatic igniter. Variance granted for igniter due to there being no productive formations while drilling with air.

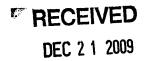
All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily
 drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order
 No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a
 test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's
 log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

Page 4 of 6 Well: Bonanza 1023-10H1BS 11/4/2009

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
 Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.



Page 5 of 6 Well: Bonanza 1023-10H1BS 11/4/2009

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
 notified when it is placed in a producing status. Such notification will be by written communication
 and must be received in this office by not later than the fifth business day following the date on
 which the well is placed on production. The notification shall provide, as a minimum, the following
 informational items:

o Operator name, address, and telephone number.

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DEC 2 1 2009

Well name and number.

DIV. OF OIL, GAS & MINING

- Well location (¼¼, Sec., Twn, Rng, and P.M.).
- Date well was placed in a producing status (date of first production for which royalty will be paid).
- o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
- o The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
- o Unit agreement and/or participating area name and number, if applicable.
- Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4.

Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to
 the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first.
 All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All
 product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in
 accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
 lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
 suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
 obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
 equipment shall be removed from a well to be placed in a suspended status without prior approval
 of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
 approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
 of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

DEC 2 1 2009

| | STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | G | FORM 9 5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 40736 |
|--|--|--|--|
| SUNDI | RY NOTICES AND REPORTS ON | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: |
| Do not use this form for propo | sals to drill new wells, significantly deepen exis ugged wells, or to drill horizontal laterals. Use A | sting wells below current | 7.UNIT or CA AGREEMENT NAME: |
| 1. TYPE OF WELL Gas Well | | | 8. WELL NAME and NUMBER: Bonanza 1023-10H1BS |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS | HORE, L.P. | | 9. API NUMBER: 43047505170000 |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S | Street, Suite 600, Denver, CO, 80217 3779 | PHONE NUMBER: 720 929-6007 Ext | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1199 FNL 0241 FEL | | | COUNTY: UINTAH |
| QTR/QTR, SECTION, TOWNSH | IP, RANGE, MERIDIAN: Township: 10.0S Range: 23.0E Meridian: S | | STATE: UTAH |
| 11. CHE | CK APPROPRIATE BOXES TO INDICATE N | NATURE OF NOTICE, REPORT, | OR OTHER DATA |
| TYPE OF SUBMISSION | | TYPE OF ACTION | |
| Kerr-McGee Oil & C change the surface of | CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF | spectfully requests to drilling practices. The | Accepted by the Utah Division of |
| attached drilling prog the same. Please | e is changing FROM: 9-5/8" TO: 8 gram for additional details. All othe contact the undersigned with ar comments. Thank you. | her information remains ny questions and/or Da B y | Oil, Gas and Mining Ate: January 26, 2010 y: |
| NAME (PLEASE PRINT) Danielle Piernot | PHONE NUMBER 720 929-6156 | TITLE Regulatory Analyst | |
| SIGNATURE N/A | | DATE 1/26/2010 | |

Bonanza 1023-10H1BS

Pad: Bonanza 1023-10A Surface: 1,199' FNL, 241' FEL (NE/4NE/4) BHL: 1,505' FNL 600' FEL (SE/4NE/4) Sec. 10 T10S R23E

> Uintah, Utah Mineral Lease: UTU 40736

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

| <u>Formation</u> | <u>Depth</u> | Resource |
|------------------|--------------|----------|
| Uinta | 0 – Surface | |
| Green River | 981' | |
| Birds Nest | 1,372' | Water |
| Mahogany | 1,871' | Water |
| Wasatch | 4,007' | Gas |
| Mesaverde | 5,849' | Gas |
| MVU2 | 6,818' | Gas |
| MVL1 | 7,359' | Gas |
| TVD | 7,900' | |
| TD | 7.957 | |

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program.

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

Evaluation Program:

Please refer to the attached Drilling Program.

7. <u>Abnormal Conditions</u>:

Maximum anticipated bottomhole pressure calculated at 7,957' TD, approximately equals 4,710 psi (calculated at 0.59 psi/foot).

Maximum anticipated surface pressure equals approximately 2,938 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

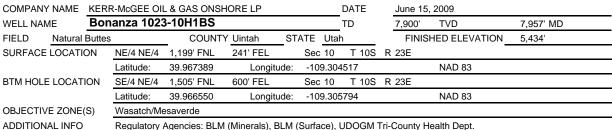
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

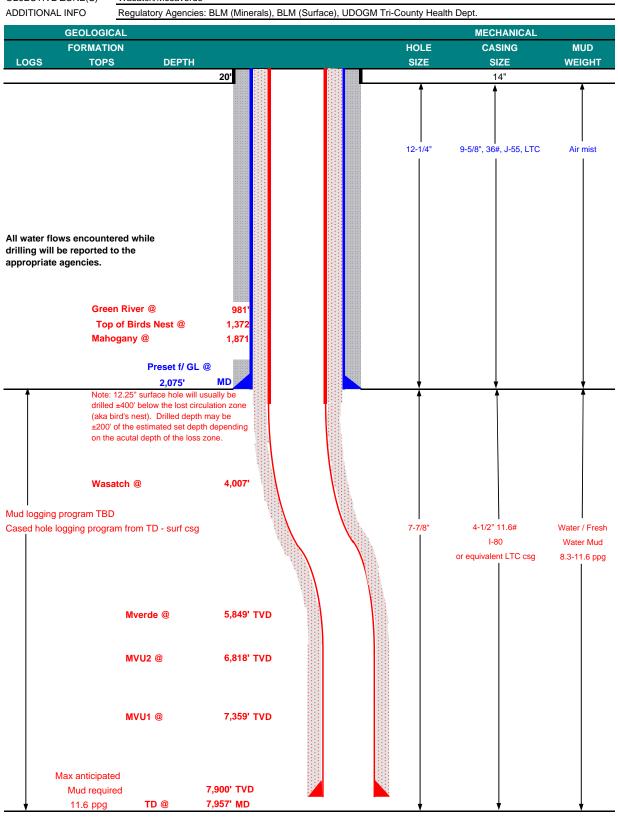
10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM







KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

| | | | | | | | | DESIGN FACTORS | | | |
|------------|--------|----------|----|-------|-------|-------|-------|----------------|---------|---------|--|
| | SIZE | INTERVAL | | WT. | GR. | CPLG. | BURST | COLLAPSE | TENSION | | |
| CONDUCTOR | 14" | 0-40' | | | | | | | | | |
| | | | | | | | | 3,520 | 2,020 | 453,000 | |
| SURFACE | 9-5/8" | 0 | to | 2,075 | 36.00 | J-55 | LTC | 1.15 | 2.08 | 7.72 | |
| | | | | | | | | 7,780 | 6,350 | 201,000 | |
| PRODUCTION | 4-1/2" | 0 | to | 7,957 | 11.60 | I-80 | LTC | 2.57 | 1.33 | 2.50 | |
| | | | | | | | | | | | |

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.6 ppg) 0.22 psi/ft = gradient for partially evac wellbore (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 2,938 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 4,710 psi

CEMENT PROGRAM

| Ī | FT. OF FILL | DESCRIPTION | SACKS | EXCESS | WEIGHT | YIELD |
|----------------------|-------------|---|-------------|---------------|----------|-------|
| SURFACE LEAD | 500' | Premium cmt + 2% CaCl | 215 | 60% | 15.60 | 1.18 |
| Option 1 | | + 0.25 pps flocele | | | | |
| TOP OUT CMT (6 jobs) | 1,200' | 20 gals sodium silicate + Premium cmt | 380 | 0% | 15.60 | 1.18 |
| | | + 2% CaCl + 0.25 pps flocele | | | | |
| | | Premium cmt + 2% CaCl | | | | |
| SURFACE | | NOTE: If well will circulate water to sur | face, optio | n 2 will be ເ | ıtilized | |
| Option 2 LEAD | 1,575' | 65/35 Poz + 6% Gel + 10 pps gilsonite | 370 | 35% | 12.60 | 1.81 |
| | | + 0.25 pps Flocele + 3% salt BWOW | | | | |
| TAIL | 500' | Premium cmt + 2% CaCl | 180 | 35% | 15.60 | 1.18 |
| | | + 0.25 pps flocele | | | | |
| TOP OUT CMT | as required | Premium cmt + 2% CaCl | as req. | | 15.60 | 1.18 |
| | | | | | | |
| PRODUCTION LEAD | 3,507' | Premium Lite II + 3% KCI + 0.25 pps | 330 | 40% | 11.00 | 3.38 |
| | | celloflake + 5 pps gilsonite + 10% gel | | | | |
| | | + 0.5% extender | | | | |
| TAIL | 4,450' | 50/50 Poz/G + 10% salt + 2% gel | 1,090 | 40% | 14.30 | 1.31 |
| | | + 0.1% R-3 | | | | |

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION

Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

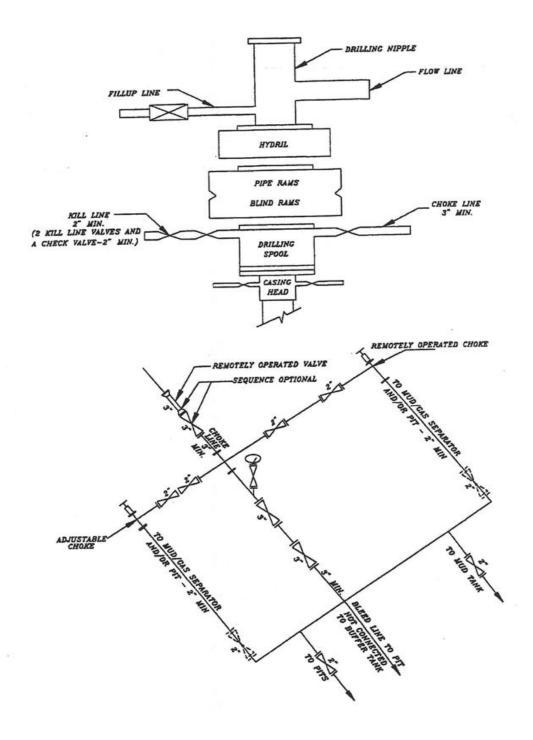
| Surveys | will be take | n at 1,000' mii | nımum ıntervals. | |
|---------|--------------|-----------------|------------------|--|
| | | | | |
| | | | | |

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

| | <u> </u> | | |
|--------------------------|-----------------------------|-------|--|
| DRILLING ENGINEER: | | DATE: | |
| | John Huycke / Emile Goodwin | | |
| DRILLING SUPERINTENDENT: | | DATE: | |
| | John Merkel / Lovel Young | | |

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A Bonanza 1023-10H1BS

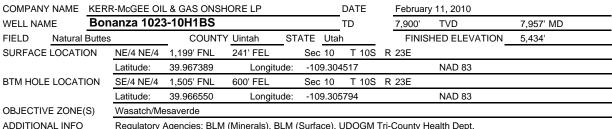


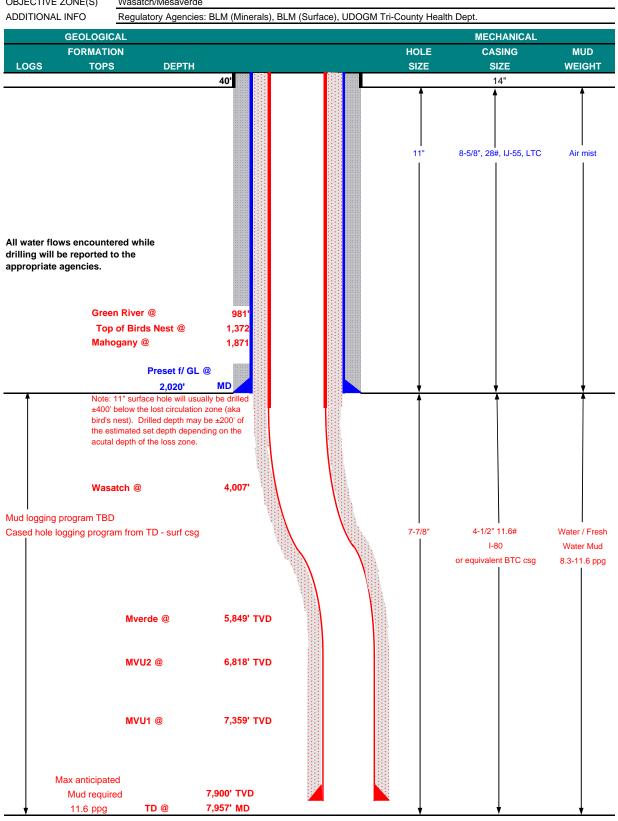
SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

| | STATE OF UTAH | | FORM 9 | | | |
|--|---|---------------------------------------|--|--|--|--|
| | DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ | IG | 5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 40736 | | | |
| SUND | RY NOTICES AND REPORTS OF | N WELLS | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: | | | |
| | sals to drill new wells, significantly deepen exisugged wells, or to drill horizontal laterals. Use A | | 7.UNIT or CA AGREEMENT NAME: | | | |
| 1. TYPE OF WELL Gas Well | | | 8. WELL NAME and NUMBER: Bonanza 1023-10H1BS | | | |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS | HORE, L.P. | | 9. API NUMBER: 43047505170000 | | | |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S | Street, Suite 600, Denver, CO, 80217 3779 | PHONE NUMBER: 720 929-6007 Ext | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES | | | |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1199 FNL 0241 FEL | | | COUNTY: UINTAH | | | |
| QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENE Section: 10 | IP, RANGE, MERIDIAN: Township: 10.0S Range: 23.0E Meridian: S | | STATE: UTAH | | | |
| 11. CHE | CK APPROPRIATE BOXES TO INDICATE N | NATURE OF NOTICE, REPORT, | OR OTHER DATA | | | |
| TYPE OF SUBMISSION | | TYPE OF ACTION | | | | |
| | ☐ ACIDIZE ☐ | ALTER CASING | CASING REPAIR | | | |
| ■ NOTICE OF INTENT Approximate date work will start: | ✓ CHANGE TO PREVIOUS PLANS | CHANGE TUBING | CHANGE WELL NAME | | | |
| 2/12/2010 | ☐ CHANGE WELL STATUS | COMMINGLE PRODUCING FORMATIONS | CONVERT WELL TYPE | | | |
| SUBSEQUENT REPORT Date of Work Completion: | DEEPEN | FRACTURE TREAT | ■ NEW CONSTRUCTION | | | |
| Date of Work Completion. | OPERATOR CHANGE | PLUG AND ABANDON | PLUG BACK | | | |
| SPUD REPORT | ☐ PRODUCTION START OR RESUME | RECLAMATION OF WELL SITE | RECOMPLETE DIFFERENT FORMATION | | | |
| Date of Spud: | REPERFORATE CURRENT FORMATION | SIDETRACK TO REPAIR WELL | TEMPORARY ABANDON | | | |
| | TUBING REPAIR | VENT OR FLARE | WATER DISPOSAL | | | |
| DRILLING REPORT Report Date: | WATER SHUTOFF | SI TA STATUS EXTENSION | APD EXTENSION | | | |
| | ☐ WILDCAT WELL DETERMINATION ☐ | OTHER | OTHER: | | | |
| 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) respectfully requests to change the cement program for this well due to a revised drilling procedure. The production casing will still be cemented it's entire length to the surface. Please see the attached drilling program for additional details. All other information remains the same. Please contact the undersigned with any questions and/or comments. Thank you. Date: February 17, 2010 By: | | | | | | |
| NAME (PLEASE PRINT) Danielle Piernot | PHONE NUMBER 720 929-6156 | TITLE Regulatory Analyst | | | | |
| SIGNATURE | 720 727 0130 | DATE | | | | |
| N/A | | 2/11/2010 | | | | |



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM







KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

| | | | | | | | | DESIGN FACTORS | | | |
|------------|--------|-----|-------|-------|-------|-------|-------|----------------|----------|---------|--|
| | SIZE | INT | ERVAL | | WT. | GR. | CPLG. | BURST | COLLAPSE | TENSION | |
| CONDUCTOR | 14" | (|)-40' | | | | | | | | |
| | | | | | | | | 3,390 | 1,880 | 348,000 | |
| SURFACE | 8-5/8" | 0 | to | 2,020 | 28.00 | IJ-55 | LTC | 1.11 | 1.99 | 6.09 | |
| | | | | | | | | 7,780 | 6,350 | 278,000 | |
| PRODUCTION | 4-1/2" | 0 | to | 7,957 | 11.60 | I-80 | BTC | 2.57 | 1.33 | 3.45 | |
| | | | | | | | | | | | |

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above.

D.F. = 2.66

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.6 ppg)

0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 2,938 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 11.6 ppg)

0.59 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 4,710 psi

CEMENT PROGRAM

| | FT. OF FILL | DESCRIPTION | SACKS | EXCESS | WEIGHT | YIELD |
|----------------------|-------------|---|-------------|---------------|----------|-------|
| SURFACE LEAD | 500' | Premium cmt + 2% CaCl | 215 | 60% | 15.60 | 1.18 |
| Option 1 | | + 0.25 pps flocele | | | | |
| TOP OUT CMT (6 jobs) | 1,200' | 20 gals sodium silicate + Premium cmt | 260 | 0% | 15.60 | 1.18 |
| | | + 2% CaCl + 0.25 pps flocele | | | | |
| | | Premium cmt + 2% CaCl | | | | |
| SURFACE | | NOTE: If well will circulate water to sur | face, optio | n 2 will be ເ | ıtilized | |
| Option 2 LEAD | 1,520' | 65/35 Poz + 6% Gel + 10 pps gilsonite | 290 | 35% | 12.60 | 1.81 |
| | | + 0.25 pps Flocele + 3% salt BWOW | | | | |
| TAIL | 500' | Premium cmt + 2% CaCl | 150 | 35% | 15.60 | 1.18 |
| | | + 0.25 pps flocele | | | | |
| TOP OUT CMT | as required | Premium cmt + 2% CaCl | as req. | | 15.60 | 1.18 |
| | | | | | | |
| PRODUCTION LEAD | 5,347' | Premium Lite II +0.25 pps | 460 | 40% | 11.00 | 3.38 |
| | | celloflake + 5 pps gilsonite + 10% gel | | | | |
| | | + 0.5% extender | | | | |
| TAIL | 2,610' | 50/50 Poz/G + 10% salt + 2% gel | 640 | 40% | 14.30 | 1.31 |
| | | + 0.1% R-3 | | | | |

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION

DRILLI

Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

DRILLING SUPERINTENDENT:

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

| | Surveys will be taken at 1,000' | minimum intervals. | | | | | |
|--------------------|---|-----------------------------|--|--|--|--|--|
| | Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized. | | | | | | |
| NG ENGINEER: DATE: | | | | | | | |
| | | John Huycke / Emile Goodwin | | | | | |

John Merkel / Lovel Young

DATE:

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

| Name of Con | mpany: | KERR-McGEE OIL & GAS COMPANY, L. P. | | | | | | |
|--------------|------------|-------------------------------------|-----------------|-------------|-----------|-------|--------|--|
| Well Name | • | BONANZA 1023-10H1BS | | | | | | |
| Api No: | 43-047- | 50517 | | Lea | ase Type: | FED] | ERAL | |
| Section 10 | Township_ | 10S | _Range_ | 23E | _County_ | UINT | AH | |
| Drilling Cor | ntractor | PF | ETE MA | <u>RTIN</u> | DRLG | RIG # | BUCKET | |
| SPUDDE | D: | | | | | | | |
| | Date | 02 | <u>/22/2010</u> | | | | | |
| | Time | 11 | :00 AM | | | | | |
| | How | Dl | RY | | | | | |
| Drilling wi | ill Comme | ence:_ | | | | | | |
| Reported by | | | TIM | HINE | ES | | | |
| Telephone# | | | (435 |) 828- | 1691 | | | |
| Date | 02/24/2010 | 0 | Signed | <u> </u> | CHD | | | |

STATE OF UTAH **DEPARTMENT OF NATURAL RESOURCES** DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N

Address:

P.O. Box 173779

city DENVER

state CO zip 80217 Phone Number: (720) 929-6100

Well 1

| API Number | Well | Name | QQ | Sec | Twp | Rng | County |
|-------------|--------------------------|----------------------|------|----------|-----|-----|---------------------------------|
| 4304750517 | BONANZA | 1023-10H1BS | NENE | 10 | 108 | 23E | UINTAH |
| Action Code | Current Entity Number | New Entity Number | S | pud Da | te | | ity Assignment ffective Date |
| A | 99999 | 17514 | | 2/22/201 | 0 | 3, | 125/10 |
| | PETE MARTIN BUCK | | | Dill | | ALC | |

SPUD WELL LOCATION ON 2/22/2010 AT 11:00 HRS.

BHL= SENE

Well 2

| API Number | Well | Name | QQ | Sec | Twp | Rng | County |
|-------------|--------------------------|----------------------|------|----------|-----|----------|---------------------------------|
| 4304750516 | BONANZA 1 | 023-10A4BS | NENE | 10 | 108 | 23E | UINTAH |
| Action Code | Current Entity Number | New Entity Number | S | pud Da | te | | ity Assignment ffective Date |
| A | 99999 | 17515 | 2 | 2/22/201 | 0 | ó | 3/25/10 |
| Comments: | | 1157 | 11/1 | | | - | / |

WOMIND MIRU PETE MARTIN BUCKET RIG. SPUD WELL LOCATION ON 2/22/2010 AT 12:30 HRS.

BHL= NENE

Well 3

| API Number | Well ! | Name | QQ | Sec | Twp | Rng | County |
|----------------|--------------------------|----------------------|------|----------|-----|-----|-------------------------------|
| 4304750518 | BONANZA 1 | 023-10H2DS | NENE | 10 | 108 | 23E | UINTAH |
| Action Code | Current Entity Number | New Entity Number | S | pud Da | te | | ty Assignment fective Date |
| A | 99999 | 17516 | 2 | 2/22/201 | 0 | 2/ | 25/10 |
| Comments: MIRU | PETE MARTIN BUCKE | | VD | | | · | |

SPUD WELL LOCATION ON 2/22/2010 AT 14:00 HRS. BHC = SENE

ACTION CODES:

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

RECEIVED

FEB 2 4 2010

| A١ | NDY | LY | ΓLE |
|----|-----|----|-----|
| | | | |

Name (Please Print)

Title

Signature (**REGULATORY ANALYST**

2/24/2010

Date

(5/2000)

| | STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE | ES | FORM 9 | | |
|---|--|--|---|--|--|
| | 5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 40736 | | | | |
| | RY NOTICES AND REPORTS | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: | | |
| | sals to drill new wells, significantly deepen ugged wells, or to drill horizontal laterals. U | | 7.UNIT or CA AGREEMENT NAME: | | |
| 1. TYPE OF WELL Gas Well | | | 8. WELL NAME and NUMBER: Bonanza 1023-10H1BS | | |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS | HORE, L.P. | | 9. API NUMBER: 43047505170000 | | |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S | street, Suite 600, Denver, CO, 80217 3779 | PHONE NUMBER: 720 929-6007 Ext | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES | | |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1199 FNL 0241 FEL | TO DANCE MEDIDYAN. | | COUNTY: UINTAH | | |
| QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENE Section: 10 | Township: 10.0S Range: 23.0E Meridian: S | 3 | STATE: UTAH | | |
| 11. | CK APPROPRIATE BOXES TO INDICAT | E NATURE OF NOTICE, REPORT, | OR OTHER DATA | | |
| TYPE OF SUBMISSION | | TYPE OF ACTION | | | |
| | ACIDIZE | ALTER CASING | CASING REPAIR | | |
| NOTICE OF INTENT Approximate date work will start: | CHANGE TO PREVIOUS PLANS | CHANGE TUBING | CHANGE WELL NAME | | |
| | CHANGE WELL STATUS | COMMINGLE PRODUCING FORMATIONS | CONVERT WELL TYPE | | |
| SUBSEQUENT REPORT Date of Work Completion: | DEEPEN | FRACTURE TREAT | ☐ NEW CONSTRUCTION | | |
| | OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK | | |
| SPUD REPORT Date of Spud: | PRODUCTION START OR RESUME | RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION | | |
| 2/22/2010 | REPERFORATE CURRENT FORMATION | SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON | | |
| ☐ DRILLING REPORT | TUBING REPAIR | ✓ VENT OR FLARE☐ SI TA STATUS EXTENSION | ☐ WATER DISPOSAL ☐ APD EXTENSION | | |
| Report Date: | WATER SHUTOFF | | | | |
| | WILDCAT WELL DETERMINATION | OTHER | OTHER: | | |
| 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL LOCATION ON 2/22/2010 AT 11:00 HRS. Utah Division of Oil, Gas and Mining FOR RECORD ONLY NAME (PLEASE PRINT) PHONE NUMBER TITLE | | | | | |
| Andy Lytle | 720 929-6100 | Regulatory Analyst | | | |
| SIGNATURE N/A | | DATE 2/24/2010 | | | |

| | STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MI | | FORM 9 5.LEASE DESIGNATION AND SERIAL NUMBER: | | | |
|---|--|---|---|--|--|--|
| | UTU 40736 | | | | | |
| SUNDF | RY NOTICES AND REPORTS | ON WELLS | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: | | | |
| | sals to drill new wells, significantly deepe gged wells, or to drill horizontal laterals. | | 7.UNIT or CA AGREEMENT NAME: | | | |
| 1. TYPE OF WELL Gas Well | | | 8. WELL NAME and NUMBER: Bonanza 1023-10H1BS | | | |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS | HORE, L.P. | | 9. API NUMBER: 43047505170000 | | | |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S | treet, Suite 600, Denver, CO, 80217 377 | PHONE NUMBER: 9 720 929-6007 Ext | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES | | | |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1199 FNL 0241 FEL | | | COUNTY: UINTAH | | | |
| QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENE Section: 10 | IP, RANGE, MERIDIAN: Township: 10.0S Range: 23.0E Meridian: | S | STATE: UTAH | | | |
| 11. CHE | CK APPROPRIATE BOXES TO INDICA | TE NATURE OF NOTICE, REPORT, | OR OTHER DATA | | | |
| TYPE OF SUBMISSION | | TYPE OF ACTION | | | | |
| | ☐ ACIDIZE | ☐ ALTER CASING | CASING REPAIR | | | |
| NOTICE OF INTENT Approximate date work will start: | ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME | | | |
| | CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | CONVERT WELL TYPE | | | |
| SUBSEQUENT REPORT Date of Work Completion: | DEEPEN | FRACTURE TREAT | NEW CONSTRUCTION | | | |
| | OPERATOR CHANGE | PLUG AND ABANDON | PLUG BACK | | | |
| SPUD REPORT | PRODUCTION START OR RESUME | RECLAMATION OF WELL SITE | RECOMPLETE DIFFERENT FORMATION | | | |
| Date of Spud: | REPERFORATE CURRENT FORMATION | SIDETRACK TO REPAIR WELL | TEMPORARY ABANDON | | | |
| ✓ DRILLING REPORT | TUBING REPAIR | VENT OR FLARE | WATER DISPOSAL | | | |
| Report Date: 3/2/2010 | WATER SHUTOFF | SI TA STATUS EXTENSION | APD EXTENSION | | | |
| 3/2/2010 | WILDCAT WELL DETERMINATION | OTHER | OTHER: | | | |
| 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU PROPETRO AIR RIG ON 02/25/2010. DRILLED 11" SURFACE HOLE TO 2026'. RAN 8 5/8 28# J-55 SURFACE CASING. TEST LINES TO 2000 PSI. Accepted by the PUMP 125 BBLS OF H20 AND 20 BBLS OF GEL WATER. PUMP 225 SX OF 15.8 tah Division of PPG, 1.15 YIELD CLASS G PREMIUM LITE TAIL CEMENT. DROP PLUG ON FOIL, Gas and Mining DISPLACE W/ 119 BBLS OF FRESH WATER. 50 PSI LIFT, NO RETURNS FOR RECORD ONLY PLUG W/ 490 PSI. PUMP 100 SX OF 15.8 PPG, 1.15 YIELD CLASS G PREMIUM LITE TAIL CEMENT. WAIT 2 HOURS, PUMP 125 SX OF SAME CEMENT. NO CEMENT TO SURFACE, WILL TOP OUT W/ REDIMIX. WORT. NAME (PLEASE PRINT) PHONE NUMBER TITLE | | | | | | |
| NAME (PLEASE PRINT) Laura Gianakos | 307 752-1169 | Regulatory Affairs Supervisor | | | | |
| SIGNATURE N/A | | DATE 3/2/2010 | | | | |

| | STATE OF UTAH | | | | | |
|--|--|---------------------------------------|--|--|--|--|
| | DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN | | 5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 40736 | | | |
| SUND | RY NOTICES AND REPORTS | ON WELLS | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: | | | |
| | sals to drill new wells, significantly deepen ugged wells, or to drill horizontal laterals. U | | 7.UNIT or CA AGREEMENT NAME: | | | |
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| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S | treet, Suite 600, Denver, CO, 80217 3779 | PHONE NUMBER: 720 929-6007 Ext | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES | | | |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1199 FNL 0241 FEL QTR/QTR, SECTION, TOWNSHI | TD DANGE MEDIDIAN- | | COUNTY: UINTAH | | | |
| | Township: 10.0S Range: 23.0E Meridian: | S | STATE: UTAH | | | |
| 11. | CK APPROPRIATE BOXES TO INDICA | TE NATURE OF NOTICE, REPORT, | OR OTHER DATA | | | |
| TYPE OF SUBMISSION | | TYPE OF ACTION | | | | |
| | ☐ ACIDIZE | ALTER CASING | ☐ CASING REPAIR | | | |
| NOTICE OF INTENT Approximate date work will start: | CHANGE TO PREVIOUS PLANS | CHANGE TUBING | CHANGE WELL NAME | | | |
| | CHANGE WELL STATUS | COMMINGLE PRODUCING FORMATIONS | CONVERT WELL TYPE | | | |
| SUBSEQUENT REPORT Date of Work Completion: | DEEPEN | FRACTURE TREAT | NEW CONSTRUCTION | | | |
| | OPERATOR CHANGE | PLUG AND ABANDON | PLUG BACK | | | |
| SPUD REPORT | PRODUCTION START OR RESUME | RECLAMATION OF WELL SITE | RECOMPLETE DIFFERENT FORMATION | | | |
| Date of Spud: | REPERFORATE CURRENT FORMATION | SIDETRACK TO REPAIR WELL | TEMPORARY ABANDON | | | |
| · / | ☐ TUBING REPAIR | VENT OR FLARE | WATER DISPOSAL | | | |
| ✓ DRILLING REPORT Report Date: | ☐ WATER SHUTOFF | SI TA STATUS EXTENSION | APD EXTENSION | | | |
| 3/20/2010 | ☐ WILDCAT WELL DETERMINATION | OTHER | OTHER: | | | |
| 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. FINISHED DRILLING FROM 2026' TO 8090' ON 3/19/2010. RAN 4-1/2" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBL SPACER. LEAD CMT W/850 SX CLASSAccepted by the G PREM LITE @ 12.2 PPG, 2.03 YD. TAILED CMT W/675 SX CLASS G 50/50Utah Division of POZ MIX @ 14.3 PPG, 1.22 YD. DISPLACE W/125 BBL CLAYFIX, FINAL LIDII, Gas and Mining PSI 2200. BUMP PLUG FLOAT HELD. FLUSH STACK, SET PACK OFF, NETOR RECORD CLEAN PITS. RELEASE ENSIGN 139 RIG ON 3/20/2010 AT 20:00 HRS. CLEAN PITS. RELEASE ENSIGN 139 RIG ON 3/20/2010 AT 20:00 HRS. | | | | | | |
| NAME (PLEASE PRINT) Andy Lytle | PHONE NUMBER 720 929-6100 | Regulatory Analyst | | | | |
| SIGNATURE N/A | | DATE 3/23/2010 | | | | |

| | STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL CAS. AND MI | | FORM 9 5.LEASE DESIGNATION AND SERIAL NUMBER: |
|--|--|---|---|
| | DIVISION OF OIL, GAS, AND MI | NING | UTU 40736 |
| SUNDF | RY NOTICES AND REPORTS | ON WELLS | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: |
| | sals to drill new wells, significantly deepe gged wells, or to drill horizontal laterals. | | 7.UNIT or CA AGREEMENT NAME: |
| 1. TYPE OF WELL Gas Well | | | 8. WELL NAME and NUMBER: Bonanza 1023-10H1BS |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS | HORE, L.P. | | 9. API NUMBER: 43047505170000 |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S | treet, Suite 600, Denver, CO, 80217 377 | PHONE NUMBER: 9 720 929-6007 Ext | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1199 FNL 0241 FEL | | | COUNTY: UINTAH |
| QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENE Section: 10 | IP, RANGE, MERIDIAN: Township: 10.0S Range: 23.0E Meridian: | S | STATE: UTAH |
| 11. CHE | CK APPROPRIATE BOXES TO INDICA | TE NATURE OF NOTICE, REPORT, | OR OTHER DATA |
| TYPE OF SUBMISSION | | TYPE OF ACTION | |
| | ☐ ACIDIZE | ☐ ALTER CASING | CASING REPAIR |
| NOTICE OF INTENT Approximate date work will start: | ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
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| SUBSEQUENT REPORT Date of Work Completion: | DEEPEN | FRACTURE TREAT | NEW CONSTRUCTION |
| | OPERATOR CHANGE | PLUG AND ABANDON | PLUG BACK |
| SPUD REPORT | PRODUCTION START OR RESUME | RECLAMATION OF WELL SITE | RECOMPLETE DIFFERENT FORMATION |
| Date of Spud: | REPERFORATE CURRENT FORMATION | SIDETRACK TO REPAIR WELL | TEMPORARY ABANDON |
| ✓ DRILLING REPORT | TUBING REPAIR | VENT OR FLARE | WATER DISPOSAL |
| Report Date: 3/2/2010 | WATER SHUTOFF | SI TA STATUS EXTENSION | APD EXTENSION |
| 3/2/2010 | WILDCAT WELL DETERMINATION | OTHER | OTHER: |
| MIRU PROPETRO AIF 2026'. RAN 8 5/8 2 PUMP 125 BBLS OF F PPG, 1.15 YIELD CLA DISPLACE W/ 119 BE PLUG W/ 490 PSI. PU LITE TAIL CEMENT. | MPLETED OPERATIONS. Clearly show all per R RIG ON 02/25/2010. DRILL 28# J-55 SURFACE CASING. THE PROPERTY OF T | ED 11" SURFACE HOLE TO FEST LINES TO 2000 PSI. A TER. PUMP 225 SX OF 15.8 MENT. DROP PLUG ON FOI I LIFT, NO RETURNS BY 5 YIELD CLASS G PREMIUN SX OF SAME CEMENT. NO / REDIMIX. WORT. | Accepted by the Utah Division of |
| Laura Ĝianakos | 307 752-1169 | Regulatory Affairs Supervisor | |
| SIGNATURE N/A | | DATE 3/2/2010 | |

| | STATE OF UTAH | | FORM 9 |
|---|---|---|--|
| | DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN | | 5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 40736 |
| SUND | RY NOTICES AND REPORTS | ON WELLS | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: |
| | sals to drill new wells, significantly deepen ugged wells, or to drill horizontal laterals. U | | 7.UNIT or CA AGREEMENT NAME: |
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| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS | HORE, L.P. | | 9. API NUMBER: 43047505170000 |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S | treet, Suite 600, Denver, CO, 80217 3779 | PHONE NUMBER: 720 929-6007 Ext | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1199 FNL 0241 FEL QTR/QTR, SECTION, TOWNSHI | TD DANGE MEDIDIAN- | | COUNTY: UINTAH |
| | Township: 10.0S Range: 23.0E Meridian: | S | STATE: UTAH |
| 11. | CK APPROPRIATE BOXES TO INDICA | TE NATURE OF NOTICE, REPORT, | OR OTHER DATA |
| TYPE OF SUBMISSION | | TYPE OF ACTION | |
| | ☐ ACIDIZE | ALTER CASING | ☐ CASING REPAIR |
| NOTICE OF INTENT Approximate date work will start: | CHANGE TO PREVIOUS PLANS | CHANGE TUBING | CHANGE WELL NAME |
| | CHANGE WELL STATUS | COMMINGLE PRODUCING FORMATIONS | CONVERT WELL TYPE |
| SUBSEQUENT REPORT Date of Work Completion: | DEEPEN | FRACTURE TREAT | NEW CONSTRUCTION |
| | OPERATOR CHANGE | PLUG AND ABANDON | PLUG BACK |
| SPUD REPORT | PRODUCTION START OR RESUME | RECLAMATION OF WELL SITE | RECOMPLETE DIFFERENT FORMATION |
| Date of Spud: | REPERFORATE CURRENT FORMATION | SIDETRACK TO REPAIR WELL | TEMPORARY ABANDON |
| · / | ☐ TUBING REPAIR | VENT OR FLARE | WATER DISPOSAL |
| ✓ DRILLING REPORT Report Date: | ☐ WATER SHUTOFF | SI TA STATUS EXTENSION | APD EXTENSION |
| 3/20/2010 | ☐ WILDCAT WELL DETERMINATION | OTHER | OTHER: |
| FINISHED DRILLING I-80 PRODUCTION C G PREM LITE @ 12 POZ MIX @ 14.3 PP PSI 2200. BUMP PLU CLEAN PITS. REL | PMPLETED OPERATIONS. Clearly show all per FROM 2026' TO 8090' ON 3/1' SG. PUMP 40 BBL SPACER. LE 2 PPG, 2.03 YD. TAILED CMT ' G, 1.22 YD. DISPLACE W/125 G FLOAT HELD. FLUSH STACK EASE ENSIGN 139 RIG ON 3/2 | 9/2010. RAN 4-1/2" 11.6# EAD CMT W/850 SX CLASS W/675 SX CLASS G 50/50 BBL CLAYFIX, FINAL LITOI K, SET PACK OFF, NO PROPE 20/2010 AT 20:00 HRS. | accepted by the Utah Division of |
| NAME (PLEASE PRINT) Andy Lytle | PHONE NUMBER 720 929-6100 | Regulatory Analyst | |
| SIGNATURE N/A | | DATE 3/23/2010 | |

| | STATE OF UTAH | | FORM 9 | | |
|--|---|---|--|--|--|
| | DEPARTMENT OF NATURAL RESOURCE. DIVISION OF OIL, GAS, AND MIN | | 5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 40736 | | |
| SUND | RY NOTICES AND REPORTS | ON WELLS | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: | | |
| | sals to drill new wells, significantly deepen o gged wells, or to drill horizontal laterals. Us | | 7.UNIT or CA AGREEMENT NAME: | | |
| 1. TYPE OF WELL Gas Well | | | 8. WELL NAME and NUMBER: Bonanza 1023-10H1BS | | |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS | HORE, L.P. | | 9. API NUMBER: 43047505170000 | | |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S | treet, Suite 600, Denver, CO, 80217 3779 | PHONE NUMBER: 720 929-6007 Ext | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES | | |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1199 FNL 0241 FEL | | | COUNTY: UINTAH | | |
| QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENE Section: 10 | IP, RANGE, MERIDIAN: Township: 10.0S Range: 23.0E Meridian: S | | STATE: UTAH | | |
| 11. CHE | CK APPROPRIATE BOXES TO INDICAT | E NATURE OF NOTICE, REPORT, | OR OTHER DATA | | |
| TYPE OF SUBMISSION | | TYPE OF ACTION | | | |
| | ACIDIZE | ALTER CASING | CASING REPAIR | | |
| NOTICE OF INTENT Approximate date work will start: | CHANGE TO PREVIOUS PLANS | CHANGE TUBING | CHANGE WELL NAME | | |
| Approximate date work will start: | CHANGE WELL STATUS | COMMINGLE PRODUCING FORMATIONS | CONVERT WELL TYPE | | |
| SUBSEQUENT REPORT Date of Work Completion: | DEEPEN | FRACTURE TREAT | NEW CONSTRUCTION | | |
| Date of Work completion: | OPERATOR CHANGE | PLUG AND ABANDON | PLUG BACK | | |
| | ✓ PRODUCTION START OR RESUME | RECLAMATION OF WELL SITE | RECOMPLETE DIFFERENT FORMATION | | |
| SPUD REPORT Date of Spud: | REPERFORATE CURRENT FORMATION | SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON | | |
| | TUBING REPAIR | VENT OR FLARE | ☐ WATER DISPOSAL | | |
| ✓ DRILLING REPORT | WATER SHUTOFF | SI TA STATUS EXTENSION | APD EXTENSION | | |
| Report Date: 5/16/2010 | | | I | | |
| | WILDCAT WELL DETERMINATION | OTHER | OTHER: | | |
| THE SUBJECT WELI 9:45 A.M. THE CHRO | MPLETED OPERATIONS. Clearly show all pert WAS PLACED ON PRODUCTION NOLOGICAL WELL HISTORY W THE WELL COMPLETION REP | ON ON MAY 16, 2010 AT TILL BE SUBMITTED WITH ORT. OIL FOR | | | |
| NAME (PLEASE PRINT) Andy Lytle | PHONE NUMBER 720 929-6100 | TITLE Regulatory Analyst | | | |
| SIGNATURE N/A | | DATE 5/17/2010 | | | |
| .4,, | | 5,1.,2010 | | | |



UNITED STATES

FORM APPROVED OMB No. 1004-0137

| (August 2007) | | | BUREA | | | MANAC | | | | | | | | Expi | res: July | 31, 2010 |
|--|-----------------------------|-----------------------|--------------------|--------------------------|-----------|-------------------------|----------------------|------------------|-------------------------|-------------------|-----------------------------------|--------------------|------------|-------------------------------|-----------------|---|
| | WELL (| COMPL | ETION C | R RE | COM | PLETI | ON RI | EPOR' | T AND L | _OG | | | | ease Serial 1 TU40736 | No. | |
| 1a. Type of | f Well | Oil Well | ⊠ Gas | Well | Dr. | у 🔲 (| Other | | | | | | 6. If | Indian, Allo | ottee o | r Tribe Name |
| b. Type o | f Completion | | lew Well er | ☐ Wor | k Over | _ D | eepen | ☐ Pl | ıg Back | □ D | iff. Re | svr. | 7. Uı | nit or CA A | greem | ent Name and No. |
| 2. Name of KERR- | Operator MCGEE OII | _&GAS C | NSHOREE | LMail: a | | Contact: A .lytle@ar | | | | | | - | | ase Name a | | |
| 3. Address | P.O. BOX DENVER, | 173779 CO 802 | 217 | | | | | | No. (include 29-6100 | e area | code) | | 9. Al | PI Well No. | • | 43-047-50517 |
| 4. Location | of Well (Re | = | | | | | | | BHL | - re | Vieu | bre | 10. F N | ield and Po ATURAL E | ool, or I | Exploratory ES |
| At surfa | | | L 241FEL 3 | | | | 452 W I | Lon | | | 1ST | | 11. S | lec., T., R., | M., or | Block and Survey 10S R23E Mer SLE |
| | orod interval i | 3514 | 4 | | FNL 6 | 06FEL | | | , | | | | 12. C | County or Pa | | 13. State |
| At total 14. Date S _I 02/22/2 | oudded | NE 1614 1 | | - ate T.D. /19/201 | | ed | | | te Complet | ed Ready | to Pro | od. | | INTAH Elevations (1 543 | DF, KI 34 GL | UT 3, RT, GL)* |
| 18. Total D | Depth: | MD | 8090 | | 19. Pl | lug Back | Γ.D.: | MD | 16/2010 80 | 30 | 12 | 20. De | oth Brid | ige Plug Se | :t:] | MD |
| | _ | TVD | 8039 | va (Suha | | | | TVD | 79 | 79 22 x | | ell core | | | | TVD (Submit analysis) |
| GR/CB | lectric & Oth L - DSN/SD | L/ACTR | nicai Logs K | un (Suoi | пи сор | y or each | , | | | 22. V | Was Was Di Was Di Direction | ST run? onal Su | rvey? | No No | ☐ Yes | (Submit analysis) (Submit analysis) (Submit analysis) |
| 23. Casing at | nd Liner Reco | ord (Repo | ort all strings | set in w | ell) | | | | 1 | | | | | | | |
| Hole Size | Size/G | rade | Wt. (#/ft.) | Top (MD | | Bottom (MD) | | Cemento Depth | | of Sks. of Cem | | Slurry (BE | | Cement 7 | Гор* | Amount Pulled |
| 20.000 | 14.000 | STEEL | 36.7 | | | 4 | | | | | 28 | | | | | |
| 11.000 | | 325 IJ55 | 28.0 | | | 204 | | | <u> </u> | | 450 | | | | | |
| 7.875 | 4 | .500 180 | 11.6 | | - | 8074 | 4 | | | | 1525 | | | | 80 | |
| | | | | | | | + | | - | | | | | | | |
| | | | | | \dashv | - | + | | - | | | - | | | | |
| 24. Tubing | Record | | | <u> </u> | | | 1 | | <u>. I</u> | | | | | | | |
| | Depth Set (M | (D) P | acker Depth | (MD) | Size | Dep | th Set (I | MD) | Packer De | pth (M | (D) | Size | De | pth Set (MI | D) | Packer Depth (MD) |
| 2.375 | | 7382 | | | | | | | | | | • | | | | |
| 25. Produci | ng Intervals | | | | | 26 | . Perfor | ation Re | cord | | | | | | | |
| Fo | ormation | | Top | | Botto | om | I | Perforate | d Interval | | | Size | N | lo. Holes | | Perf. Status |
| A) | MESAVE | RDE | | 6596 | | 7778 | | | 6596 T | 0 777 | 78 | 0.3 | 60 | 254 | OPE | N |
| B) | | | | | | | | _ | | | | | | | | |
| C) | | | | | | | | | | | - | | | | | |
| D) | | | | | | | | | | | | - | | | l | |
| | racture, Treat | | nent Squeeze | e, Etc. | | | | | | 1.00 | 63.6 | 4 . 1 . 1 | | F | 7-1 | EIVED |
| | Depth Interva | | 770 DMD 04 | OA DDI G | e el lok | CH20 & 34 | 46 9471 | | Amount and | a Type | oi Ma | teriai | | - k | <u> </u> | Destrict V III |
| | 00 | 96 TO 7 | / / 8 PIVIP 9,0 | JU4 DDL | 3 GLICI | (1120 Q 3 | +0,017 L | .00 00/00 | 7 OD. | | | | | | JUN | 2 2 2010 |
| | | | | | | | | | | | | | | ···· | | |
| | | | | | | | | | | | | | | D!V. C |)F OIL | , GAS & MINING |
| 28. Product | ion - Interval | A | | | | | | | | | | | | | | |
| Date First Produced 05/16/2010 | Test Date 05/19/2010 | Hours Tested 24 | Test Production | Oil BBL 0.0 | Ga: MC | | Water BBL 840. | Corr | Gravity :. API | | Gas Gravity | | Producti | on Method FLOW | VS FRO | OM WELL |
| Choke Size | Tbg. Press. Flwg. 1275 | 1 | 24 Hr. Rate | Oil BBL 0 | Ga MC | | Water BBL 840 | Gas Rati | | | Well Stat | | | | | |
| 20/64 | si tion - Interva | 1900.0 | | L | | 2002 | 040 | <u>′L</u> | - | | | | - | | | |
| 28a. Produc | Test | Hours | Test | Oil | Ga | | Water | | Gravity | | Gas | | Producti | on Method | | |
| Produced | Date | Tested | Production | BBL | MO | CF | BBL | Corr | : API | ľ | Gravity | | 1 | | | |

Csg. Press.

Tbg. Press. Flwg.

Choke

Gas MCF

Oil BBL

Gas:Oil Ratio

Well Status

Water BBL

| 28b. Prod | uction - Interv | ral C Hours | Test | Oil | Gas | Water | Oil Gravity | 1 | Gas | Production Method | | <u></u> |
|---|--|---------------------------|--------------------------------------|--------------------------------------|-----------------------------|---------------------------------------|-------------------------------------|------------------------|-------------------|--------------------|-----------------|--------------------|
| Produced | Date | Tested | Production | BBL | MCF | BBL | Corr. API | | Gravity | | <u>.</u> | |
| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas:Oil Ratio | | Well Status | | | |
| 28c. Prod | uction - Interv | al D | | 4 | | | | | | | | |
| Date First Produced | Test Date | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | | Gas Gravity | Production Method | | |
| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas:Oil Ratio | | Well Status | | | |
| 29. Dispo | sition of Gas(| Sold, used | for fuel, vent | ed, etc.) | l | · · · · · · · · · · · · · · · · · · · | | | | | | |
| 30. Sumn | nary of Porous | Zones (Ir | nclude Aquife | rs): | | | | | 31. Fc | ormation (Log) Ma | rkers | |
| tests, | all important including depter coveries. | zones of p th interval | orosity and c tested, cushic | ontents there on used, time | eof: Cored in tool open, | ntervals and flowing an | d all drill-stem d shut-in press | sures | | | | |
| | Formation | | Тор | Bottom | | Descripti | ons, Contents, | , etc. | | Name | | Top Meas. Depth |
| GREEN F BIRD'S N MAHOGA WASATC MESAVE | EST NY H | (include p | 1122 1358 1860 4068 5795 | 5795 8090 edure): LL WELL H | TD STORY A | ND FINAL | SURVEY. | | | | Juni | 2 20.3 |
| | | | | | | | | | | D | olv. of oil, | GAS & MINING |
| 1. El | e enclosed atta ectrical/Mecha andry Notice fo | nical Log | | | | 2. Geologi 6. Core Ar | • | | 3. DST R 7 Other: | eport | 4. Direction | onal Survey |
| | by certify that | | Elec | tronic Subm | ission #879 | 004 Verifie | d by the BLM ONSHORE, I | 1 Well Inf LP, sent | ormation S | al | sched instructi | ons): |
| INAING | (pieuse prim) | | | | · | | | | | | | |
| Signa | ture | (Electro | nic Submiss | ion) | | <u> </u> | Dat | te <u>06/14/2</u> | 2010 | | | |
| Title 18 I | J.S.C. Section | 1001 and | Title 43 U.S. | C. Section 1 | 212, make | it a crime fo | or any person l | knowingly | and willfull | y to make to any d | lepartment or | agency |
| of the Un | ited States any | false, fic | titious or frac | lulent statem | ents or repr | esentations | as to any mat | ter within | its jurisdictio | on, | | |

Operation Summary Report

| Well: BONANZ | A 1023-10 | H1BS [C | REENI | Spud Co | nductor | : 2/22/20 | 010 | Spud Date: 2/26/2010 |
|----------------|-----------|-----------|---------------|-----------|----------|-------------|---------|--|
| Project: UTAH- | | | | Site: BOI | NANZA | 1023-10 | A PAD | Rig Name No: ENSIGN 139/139, PROPETRO/ |
| Event: DRILLIN | | | | Start Dat | e: 2/1/2 | 010 | | End Date: 3/20/2010 |
| Active Datum: | | 48.01ft (| above Mear | | | | 10/S/23 | 3/E/10/0/0/6/PM/N/1,199.00/E/0/241.00/0/0 |
| Date | Start | | Duration (hr) | Phase | Code | Sub Code | P/U | (ft) |
| 2/25/2010 | 15:00 - | 23:30 | 8.50 | DRLSUR | 01 | В | Р | DRESS COND,INSTALL AIR BOWL,RIG UP,BUILD DITCH,R/U PUMPS,AIR COMP,BOSSTER , SET DOG HOUSE |
| | 23:30 - | 0:00 | 0.50 | DRLSUR | 06 | Α | Р | P/U BIT # 1 SERIAL # 7019294, MUD MOTOR, 1.83 BEND SERIAL # 8034 |
| 2/26/2010 | 0:00 - | | 0.50 | DRLSUR | 06 | Α | Р | P/U BIT # 1 SERIAL # 7019294, MUD MTR 1.83 BEND SERIAL # 8084 |
| | 0:30 - | 1:30 | 1.00 | DRLSUR | 02 | В | Р | SPUD 11" HOLE @ 00:30HRS 2-26-2010, DRL F/ 44 TO 150' |
| | 1:30 - | | 2.00 | DRLSUR | 06 | Α | Р | L/D 6" TOOLS P/U MWD DIR TOOLS |
| | 3:30 - | | 18.00 | DRLSUR | 02 | D | P | DRL/W MWD F/44' TO 2070' TD,(2026)'=112' HR WOB=22,ROT=55,MTR=105,GPM=650,PP=1400 ON/1100/OFF,UP/DWN/ROT=65/65/65 |
| | 21:30 - | | 2.00 | DRLSUR | 05 | Α | P | CIRC,TO LDDS |
| | 23:30 - | | 0.50 | DRLSUR | 06 | D | Р | LDDS |
| 2/27/2010 | 0:00 - | | 3.00 | DRLSUR | 06 | D | Р | LDDS,BHA,DIR TOOLS |
| | 3:00 - | 6:00 | 3.00 | DRLSUR | 12 | С | Р | SAFETY MTNG, RUN 46 JOINTS 8 5/8 32# J-55 CSNG, SHOE @ 2031.35' BAFFLE IN TOP OF SHOE JOINT @ 1987.45' RELEASE RIG TO THE BONANZA 1023-10A4BS - 2-27-2010 @ 06:00 AM |
| | 6:00 - | 9:00 | 3.00 | DRLSUR | 12 | С | P | HELD SAFETY MTNG,PRESS TEST TO 2000 PSI,PUMP 125 BBLS H20,PUMP 20 BBLS GEL WATER,PUMP225X 15.8 # 1.15 YLD 5 GAL/SK TAIL CMNT DROP PLUG ON FLY DISP W/ 119 BBLS FRESH WATER 50 PSI LIFT NO RETURNS, BUMP PLUG W / 490 PSI, TOP OUT 125 SX OF 15.8#. 1.15 YLD 5 GAL SK 4% CALC CMNT, NO CEMENT TO SURFACE WILL TOP OUT WITH REDIMIX. |
| 3/13/2010 | 13:00 - | 0:00 | 11.00 | DRLPRO | 01 | E | P | R/D RIG GET READY FOR MOVE THIS AM W/ JONES TRUCKING. |
| 3/14/2010 | | 6:30 | 5.50 | DRLPRO | 01 | Е | Р | R/D GET READY FOR MOVE & WELD BRACKETS IN DERRRICK FOR NEW CROWN SAVER - |
| | 6:30 - | | 17.50 | DRLPRO | 01 | Α | Р | HELD S/M W/ RW JONES CREWS & ENSIGN CREWS & STARTED RIG MOVE @ 07:00 & LAST TRUCK OUT @ 16:00 HRS - RAISE DERRICK & CONT TO R/U & WORK ON RIG SMART. |
| 3/15/2010 | 0:00 - | | 8.50 | DRLPRO | 01 | G | P | FINISH RIGGING UP & UPGRADE RIG SMART & REPROGRAM. |
| | 8:30 - | | 2.00 | DRLPRO | 14 | Α | Р | N/U B.O.P'S & FLARE LINES |
| | 10:30 - | 15:00 | 4.50 | DRLPRO | 15 | Α | Р | TEST B.O.P'S - PIPE - BLINDS - HCR - 4" - 2" VALVES - TO 250 LOW - 5000 HIGH - ANNULAR 250 LOW - 2500 HIGH & CASING 1500 PSI |
| | 15:00 - | 15:30 | 0.50 | DRLPRO | 14 | В | P | SET WEAR BUSHING |
| | 15:30 - | | 5.50 | DRLPRO | 06 | Α | P | P/U MUD MOTOR & BIT & DIR TOOLS & BHA & D.F TAG CEMENT @ 1920 |
| | 21:00 - | | 1.00 | DRLPRO | 02 | F | Ρ | DRILL CEMENT & F.E |
| | 22:00 - | 0:00 | 2.00 | DRLPRO | 02 | D | Р | DIR DRILL F/ 2080 TO 2293 - 213' @ 106.5 FPH W/ 8.4 MUD WT - RPM 45 - MRPM 141 - WOB 15/18 - TQ 5/3 - GPM 487 |
| 3/16/2010 | 0:00 - | 11:00 | 11.00 | DRLPRO | 02 | D | Р | DIR DRILL F/ 2293 TO 3741 - 1448' @ 131.6 FPH - W/ 8.4 MUD WT - RPM 45 - MRPM 141 -WOB 15/18 - TQ 10/6 - GPM 487 |
| | 11:00 - | 11:30 | 0.50 | DRLPRO | 80 | В | P | RECEIVE CTRICAL AUX CORD ON #1 PUMP - IT RUN RECEIVER WASHER - BLOWERS - OIL PUMPS. |
| | 11:30 - | 12:00 | 0.50 | DRLPRO | 07 | Α | P, | SER RIG |

Operation Summary Report

| Project: UTAH | ZA 1023-10H1BS [G I-UINTAH | | Site: BOI | VANZA | 1023-10 | A PAD | Rig Name No: ENSIGN 139/139, PROPETRO/ |
|---|-------------------------------|--|-----------|---------------------|-------------|-----------------------|---|
| Event: DRILLI | | | Start Dat | | | | End Date: 3/20/2010 |
| | | ahove Mea | I | | | 10/5/23/ | E/10/0/0/6/PM/N/1,199.00/E/0/241.00/0/0 |
| V. COLONIA AND DESCRIPTION OF THE PARTY AND | | NAMES OF TAXABLE PARTICIPATIONS OF TAXABLE P | | CATTO IN CONTRACTOR | | and the second second | |
| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From Operation (ft) |
| | 12:00 - 0:00 | 12.00 | DRLPRO | 02 | D | Р | DIR DRILL F/ 3741 TO 5041 - 1300' @ 108.3 FPH V |
| | | | | | | | 8.4 MUD WT - RPM 45 - MRPM 129/141 - WOB 15/18 - TQ 12/7 - GPM 445/487 |
| 3/17/2010 | 0:00 - 13:00 | 13.00 | DRLPRO | 02 | D | Р | DIR DRILL F/5041 TO6072 ,AVG 79 ,WOB 18,GPN 500,DIFF300,PSI 1450/1800 ,TORQ 10K,RPM 175,STWT 180-160-150,9.3/37 |
| | 13:00 - 13:30 | 0.50 | DRLPRO | 07 | Α | Р | DAILY SERVICE |
| | 13:30 - 0:00 | 10.50 | DRLPRO | 02 | D | Р | DIR DRILL F/6072 TO 6800,AVG 69 ,WOB 18,GPN 500,DIFF 275,PSI 2300/2700 ,TORQ 11.5K,RPM 175,STWT 200-180-160,10.7/42 |
| 3/18/2010 | 0:00 - 11:00 | 11.00 | DRLPRO | 02 | D | Р | DIR DRILL F/6800 TO 7340,AVG 49 ,WOB 20,GPN 500,DIFF250,PSI 2550/2800 ,TORQ 11.5K,RPM 175,STWT 220-188-165,11.4/42 |
| | 11:00 - 12:00 | 1.00 | DRLPRO | 06 | Α | P | PUMPPILL POOH |
| | 12:00 - 13:00 | 1.00 | DRLPRO | 80 | Α | Z | TROUBLE SHOOT PECO ANTI COLLISION SYSTEM |
| | 13:00 - 16:00 | 3.00 | DRLPRO | 06 | Α | Р | POOH,TO SHOE |
| | 16:00 - 18:00 | 2.00 | DRLPRO | 08 | Α | Z | WORK ON PECO & RIG SMART SAFETY FEATURES,MUST BYPASS BOTH TEMORARLY T LATCH ELEVATORS ON PIPE |
| | 18:00 - 19:30 | 1.50 | DRLPRO | 06 | Α | P | TRIP OUT ,CHANGE BIT & MTR ,STAND BACK DII TOOLS |
| | 19:30 - 0:00 | 4.50 | DRLPRO | 06 | Α | Р | TIH W/BIT #2 |
| 3/19/2010 | 0:00 - 2:00 | 2.00 | DRLPRO | 06 | Α | Ρ | TIH,BREAK CIRC 4000',TIH TIGHT HOLE |
| | 2:00 - 14:00 | 12.00 | DRLPRO | 02 | D | Р | DIR DRILL F/ 7340 TO TD 8090,AVG 53 ,WOB 20,GPM 500,DIFF300,PSI 2150/2450 ,TORQ 12-13K,RPM 110,STWT 230-188-165,11.7/42 |
| | 14:00 - 15:30 | 1.50 | DRLPRO | 06 | E | Р | PUMPPILL,SHORTTRIP 10 STNDSSTRAIGHT 240 OFF BTM,5' FILL |
| | 15:30 - 17:00 | 1.50 | DRLPRO | 05 | С | Р | CIRC BTMS UP TWICE |
| | 17:00 - 0:00 | 7.00 | DRLPRO | 06 | В | Р | ,DROP SURVEY,POOH F/LOGS,FINAL SURVEY@7960'=1.9 DEG 145 AZI,PULL WEARRING |
| 3/20/2010 | 0:00 - 6:30 | 6.50 | EVALPR | 11 | D | Ρ | RUN TRIPLE COMBO,WORK BRIDGE@7864 LOGGERS DEPTH 7864 |
| | 6:30 - 13:30 | 7.00 | CSG | 12 | С | Р | RUN 191 & 1MARKER TO 8074',LAND OUT |
| | 13:30 - 14:30 | 1.00 | CSG | 05 | D | Р | CIRC BTMS UP F/CEMENT |
| | 14:30 - 16:30 | 2.00 | CSG | 12 | E | Р | PUMP 40BBLSPACER,850SX LEAD#12.2 2.03YLE 675 SX TAIL#14.3 1.22YLD,DISPLACE 125BBL CLAYFIX,FINAL LIFT 2200PSI,BUMPPLUG FLOAT HELD |
| | 16:30 - 17:00 | 0.50 | RDMO | 14 | Α | Ρ | FLUSH STACK,SET PACK OFFNDBOP |
| | 17:00 - 20:00 | 3.00 | RDMO | 01 | E | P | CLEAN PITS, RELEASE RIG 3/20/2010 20:00 |



DIV. OF CIL, GAS & MINING

Operation Summary Report

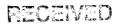
| Well: BONA | NZA 1023-10H1BS [GREEN] | Spud Conductor: 2/22/2010 Spud I | Date: 2/26/2010 |
|--------------|---|--|---|
| Project: UTA | H-UINTAH | Site: BONANZA 1023-10A PAD | Rig Name No: ENSIGN 139/139, PROPETRO/ |
| vent: DRILL | | Start Date: 2/1/2010 | End Date: 3/20/2010 |
| ctive Datum | | n Sea Leve UWI: NE/NE/0/10/S/23/E/10/0/0 | |
| Date | Time Duration Start-End (hr) 20:00 - 20:00 0.00 | | From Operation ft) |
| | 20.00 0.00 | No. | Cond. Depth set: 44 Cement sx used: |
| | | | SPUD DATE/TIME: 2/26/2010 11:00 |
| | | | SURFACE HOLE: Surface From depth:44 |
| | | | Surface To depth: 2,070 |
| | | | Total SURFACE hours: 19.00 |
| | | | Surface Casing size:8 5/8 # of casing joints ran: 46 |
| | | | Casing set MD:2,031.0 |
| | | | # sx of cement:450 Cement blend (ppg:)15.8 |
| | | | Cement yield (ft3/sk): 1.15 |
| | | | # of bbis to surface: |
| | | | Describe cement issues: 1 TOPOUTS REDI MIX ?? YARDS TO SURFACE |
| | | | Describe hole issues: |
| | | | PRODUCTION: |
| | | | Rig Move/Skid start date/time: 3/13/2010 13:00 Rig Move/Skid finish date/time:3/15/2010 8:30 |
| | | | Total MOVE hours: 43.5 |
| | | | Prod Rig Spud date/time: 3/15/2010 21:00 Rig Release date/time: 3/20/2010 20:00 |
| | | | Total SPUD to RR hours: 119.0 |
| | | | Planned depth MD 8,090 |
| | | | Planned depth TVD 8,041 Actual MD: 8,090 |
| | | | Actual TVD: 8,039 |
| | | | Open Wells \$: \$639,307 |
| | | | AFE \$: \$624,715 Open wells \$/ft:\$79.02 |
| | | | · |
| | | | PRODUCTION HOLE: Prod. From depth: 2,070 |
| | | | Prod. To depth/8,090 |
| | | | Total PROD hours: 73.5 |
| | | | Log Depth: 7864 Production Casing size: 4 1/2 |
| | | | # of casing joints ran: 192 |
| | | | Casing set MD:8,074.0 |
| | | | # sx of cement:1,525 Cement blend (ppg:)LEAD 12.2 10% - TAIL 14.3 - |
| | | | 20% |
| | | | Cement yield (ft3/sk): 2.03 - 1.22 |
| | | Page Viel | Est. TOC (Lead & Tail) or 2 Stage : TAIL@5300 LEAD TOP EST 500' |
| | | has been been it is have been | Describe cement issues: GOOD RETURNS ,NO |
| | | JUN 2 2 2010 | CEMENT BACK TO SURFACE |
| | | | Describe hole issues: LOGS HIT BRIDGE@7864,FINAL MUD WT 11.9 |
| | | DIM OF CIL, GAS & MINING | DIRECTIONAL INFO: |
| | | | KOP: 105 |
| | | | Max angle: 13.85 Departure: 472.25 |
| | | | Max dogleg MD: 2704 5.03 |

Operation Summary Report

| Well: BONANZ | ZA 1023-10H1BS | [GREEN] | Spud Co | onductor: | 2/22/ | 2010 | Spud Date: 2/26/2010 |
|---------------|-------------------|----------------|------------|-----------------------|-------------|-------------|---|
| Project: UTAH | -UINTAH | <u> </u> | Site: BO | NANZA | 1023-1 | IOA PAD | Rig Name No: SWABBCO 1/1 |
| Event: COMPL | ETION | | Start Da | te: 5/10/2 | 2010 | | End Date: 5/14/2010 |
| Active Datum: | RKB @5,448.01 | ft (above Mear | n Sea Leve | UWI: N | E/NE/ | 0/10/S/23/E | /10/0/0/6/PM/N/1,199.00/E/0/241.00/0/0 |
| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From Operation (ft) |
| 5/7/2010 | 7:00 - 15:00 | 8.00 | COMP | 37 | В | Р | HSM, WHEN P/T STAY BACK, MIRU B&C TESTERS, P/T CSG & FRAC VALVES TO 7500# [GOOD TEST] MIRU CUTTERS WIRE LINE P/U RIH W/ 3-3/8 EXPEND, 23 GRM, 0.36" HOLE, 7774'-7778' 4 SPF, 90* PH, 16 HOLES. 7703'-7706' 4 SPF, 90* PH, 12 HOLES. 7640'-7643' 3 SPF, 120* PH, 9 HOLES. 7600'-7602' 3 SPF, 120* PH, 6 HOLES [43 HOLES] READY TO FRAC SWI. |
| 5/10/2010 | 6:30 - 7:00 | 0.50 | COMP | 48 | | Р | HSM. FRACING & PERFORATING ON A PAD WELL. |
| | 8:08 - 8:58 | 0.83 | COMP | 36 | В | Р | STG 1) WHP 600 PSI, BRK 3,587 PSI @ 4.6 BPM, ISIP 2,332 PSI, FG .74. PUMP 100 BBLS @ 50.2 BPM @ 4,292 PSI = 93% HOLES OPEN. MP 5,575 PSI, MR 51.3 BPM, AP 4,156 PSI, AR 50.7 BPM, ISIP 2173 PSI, FG .72. NPI -159 PSI. PUMP 1,295 BBLS OF SW & 37,572 LBS OF 30/50 SAND & 5,000 LBS OF 20/40 RESIN SAND. TOTAL PROP 42,572 LBS. |
| | 10:47 - 11:58 | 1.13 | COMP | 36 | В | P | STG 2) PU 4 1/2" HALLIBURTON CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 & 120 DEG PHASING RIH SET CBP @ 7,572' & PERF 7,538'-42' 4SPF, 7,462'-66' 3SPF, 7,432'-36' 4SPF, 44 HOLES. WHP 1,980 PSI, BRK 2,845 PSI @ 4.8 BPM, ISIP 2,080 PSI, FG .71. PUMP 100 BBLS @ 54.8 BPM @ 4,800 PSI = 80% HOLES OPEN. MP 6,933 PSI, MR 55.1 BPM, AP 5,011 PSI, AR 54.9 BPM, ISIP 5,491 PSI, FG 1.2. NPI 3,411 PSI. PUMP 2,867 BBLS OF SW & 87,984 LBS OF 30/50 SAND & 5,000 LBS OF 20/40 RESIN SAND. TOTAL PROP 92,984 LBS. SCREENED OUT W / 84,984 LBS IN FORMATION & 8,000 LBS IN CASING. NO RESIN SAND. |
| | 14:58 - 15:25 | 0.45 | COMP | 36 C.E.C. JUN : | | | FLOW WELL BACK & RE FLUSH. STG 3) PU 4 1/2" HALLIBURTON CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING. RIH SET CBP @ 7,380' & PERF 7,346'-50' 4SPF, 7,322'-24' 4SPF, 7,280'-82' 4SPF, 7,210'-12' 4SPF, 4(HOLES. WHP 225 PSI, BRK 4,146 PSI @ 4.6 BPM, ISIP 2,077 PSI, FG .72. PUMP 100 BBLS @ 49.5 BPM @ 4,000 PSI = 74% |
| | | | D!V. | of Cil, | GAS (| A MINING | HOLES OPEN. MP 6,453 PSI, MR 50.1 BPM, AP 4,646 PSI, AR 49.7 BPM, ISIP 1,890 PSI, FG .69. NPI -187 PSI. PUMP 1,177 BBLS OF SW & 39,504 LBS OF 30/50 SAND & 5,000 LBS OF 20/40 RESIN SAND. TOTAL PROP 44,504 LBS. |
| | 16:00 - 17:00 | 1.00 | COMP | 37 | С | Р | STG 4) PU 4 1/2" HALLIBURTON CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING. RIH SET CBP @ 7,172' & PERF 7,138'-42' 4SPF, 7,063'-66' 4SPF, 7,040'-42' 4SPF, 7,022'-24' 4SPF, 4' HOLES. |
| 5/11/2010 | 6:00 - 6:30 | 0.50 | COMP | 48 | | Р | HSM. FRACING & PERFORATING ON A PAD WELL. |

Operation Summary Report

| - | | | 500 | | | | Soud Date: 2/26/2010 |
|---|----------------------------------|------------------------------------|---|---|--|---------------------|--|
| | A 1023-10H1BS [G | REEN] | Spud Co | | | | Spud Date: 2/26/2010 Rig Name No: SWABBCO 1/1 |
| Project: UTAH- | | | Site: BO | | | TAD | |
| Event: COMPL | | | Start Dat | | | 0/0/00/ | End Date: 5/14/2010 |
| or a propher street service of \$200.20 | RKB @5,448.01ft (a | necessaries in the contract of the | CONTRACTOR OF THE PARTY OF THE | DATE OF THE PARTY | DESCRIPTION OF THE PARTY OF THE | a server entrates a | E/10/0/0/6/PM/N/1,199.00/E/0/241.00/0/0 MD From Operation |
| Date : | Time Start-End 7:54 - 8:13 | Ouration (hr) 0.32 | Phase COMP | Gode 36 | Sub Code B | P/U P | STG 4) WHP 1,320 PSI, BRK 1,904 PSI @ 4.7 BPM, ISIP 1,400 PSI, FG .64. PUMP 100 BBLS @ 50.7 BPM @ 3,900 PSI = 71% |
| | | | | | | | HOLES OPEN. MP 4,994 PSI, MR 54.2 BPM, AP 4,111 PSI, AR 52.6 BPM, ISIP 1,900 PSI, FG .74. NPI 500 PSI. PUMP 676 BBLS OF SW & 17,285 LBS OF 30/50 SAND & 5,000 LBS OF 20/40 RESIN SAND. TOTAL PROP 22,285 LBS. |
| | 11:10 - 12:00 | 0.83 | COMP | 36 | В | Р | STG 5) PU 4 1/2" HALLIBURTON CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 & 120 DEG PHASING RIH |
| | | | | | | | SET CBP @ 6,958' & PERF 6,926'-28' 3SPF, 6,900'-04' 3SPF, 6,840'-44' 4SPF, 6,806'-09' 3SPF, 4' HOLES. |
| | | | | | | | WHP 181 PSI, BRK 2,145 PSI @ 4.7 BPM, ISIP 1,570 PSI, FG .67. PUMP 100 BBLS @ 55 BPM @ 3,500 PSI = 100% HOLES OPEN. MP 4,670 PSI, MR 55.3 BPM, AP 3,756 PSI, AR 55 BPM, ISIP 1,725 PSI, FG .69. NPI 155 PSI. PUMP 2,251 BBLS OF SW & 83,876 LBS OF 30/50 SAND & 5,000 LBS OF 20/40 RESIN SAND. TOTAL PROP 88,876 LBS. |
| | 14:20 - 14:50 | 0.50 | COMP | 36 | В | P | STG 6) PU 4 1/2" HALLIBURTON CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING. RIH SET CBP @ 6,788' & PERF 6,756'-58' 4SPF, 6,726'-28' 4SPF, 6,694'-96' 4SPF, 6,622'-24' 4SPF, 6,596'-98' 4SPF, 40 HOLES. WHP 1,350 PSI, BRK 1,545 PSI @ 4.6 BPM, ISIP 1,350 PSI, FG .64. PUMP 100 BBLS @ 52 BPM @ 4,600 PSI = 71% HOLES OPEN. MP 5,715 PSI, MR 52.2 BPM, AP 3,990 PSI, AR 50 BPM, ISIP 2,020 PSI, FG .74. NPI 670 PSI. PUMP 1,338 BBLS OF SW & 50,596 LBS OF 30/50 SAND & 5,000 LBS OF 20/40 RESIN SAND. TOTAL PROP 55,596 LBS. |
| 5/40/0040 | 7:00 - 7:15 | 1.00 | COMP | 34 | I | Р | KILL PLG) PU 4 1/2" HALLIBURTON CBP & RIH SET CBP @ 6,546'. SWI RDMO. TOTAL PROP 346,817 LBS TOTAL WATER 9,604 BBLS. JSA APPLY CHAINS |
| 5/13/2010 | 7:00 - 7:15 7:15 - 17:00 | 0.25 9.75 | COMP | 48 30 | | | CHAIN UP RIG MOVE RIG & EQUIP TO 10A PAD SPOT RIG & EQUIP, RU RIG 0 PSI ON WELL ND FRAC VALVES NU BOPS RU FLOOR & TUB EQUIP SPOT IN TUBING, TALLEY & PU 208 JNTS OF 2-3/8" J-55 TUB TAG KILL PLUG @ 6546' RU PWR SWVL NU RIG PUMP PREP TO START DRILLING IN AM SWIFN. |
| 5/14/2010 | 7:00 - 7:15 | 0.25 | COMP | 48 | | Р | JSA= DRILL PLUGS |



JUN 2 2 2010

DIM OF OIL, GAD & MINING

Operation Summary Report

| Well: BONANZA 1023-10H1BS [G | REEN] Spud Conductor: 2/22/2010 Spud I | Date: 2/26/2010 |
|--|---|--|
| Project: UTAH-UINTAH | Site: BONANZA 1023-10A PAD | Rig Name No: SWABBCO 1/1 |
| Event: COMPLETION | Start Date: 5/10/2010 | End Date: 5/14/2010 |
| Active Datum: RKB @5,448.01ft (a | above Mean Sea Leve UWI: NE/NE/0/10/S/23/E/10/0/0 | /6/PM/N/1,199.00/E/0/241.00/0/0 |
| Date Time Start-End 7:15 - 16:00 | | From Operation it) EST CIRC PRESS TEST TO 3000 PSI |
| | | PLUG #1] DRILL THRU HALLI 8K CBP @ 6546' IN 9 MIN W/ 50# INCREASE |
| | | PLUG#2] CONTINUE TO RIH TAG SAND @ 6738' (50' FILL) C/O & DRILL THRU HALLI 8K CBP @6788' IN 7 MIN W/ 60 # INCREASE |
| | | PLUG#3] CONTINUE TO RIH TAG SAND @ 6874' (84' FILL) C/O & DRILL THRU HALLI 8K CBP @ 6958' IN 10 MIN W/ 200 # INCREASE |
| | | PLUG#4] CONTINUE TO RIH TAG SAND @ 7149' (23' FILL) C/O & DRILL THRU HALLI 8K CBP @7172' IN 7 MIN W/ 500 # INCREASE |
| | | PLUG#5] CONTINUE TO RIH TAG SAND @ 7350' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @7380' IN 15 MIN W/350 # INCREASE |
| | | PLUG#6] CONTINUE TO RIH TAG SAND @ 7542' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @7572' IN 20 MIN W/ 400 # INCREASE |
| | | CONTINUE TO RIH C/O TO PBTD @ 8031' CIRC CLEAN POOH LAY DOWN 21 JNTS LAND TUBING ON HANGER W/ 234 JNTS EOT @ 7382.46' RD FLOOR & TUBING EQUIP ND BOPS NU WELLHEAD DROP BALL PUMP OFF BIT SUB @ 1700 PSI WAIT 30 MIN FOR BIT TO FALL TURN WELL OVER TO FBC @ 13:40 RIG DOWN MOVE TO 10A4BS USED 234 JNTS , 44 JNTS ON FLOAT, 2 BAD JNTS ON GROUND |
| | PECEIVED JUN 2 2 2010 | TOTAL FLUID PUMPED= 9604 BBLS RIG REC = 900 BBLS LEFT TO REC= 8704 BBLS |
| | DW. OF CIL, GAS & MAINIG | KB= 13.00 HANGER= 1.00 234 JNTS OF 2-3/8" J-55 = 7366.26 POBS= 2.20 |
| 5/15/2010 7:00 - | 33 A | EOT= 7382.46 7 AM FLBK REPORT: CP 2600#, TP 1475#, 20/64" CK, 55 BWPH, HEAVY SAND, LIGHT GAS TTL BBLS RECOVERED: 1155 |
| 5/16/2010 7:00 - | 33 A | BBLS LEFT TO RECOVER: 8449 7 AM FLBK REPORT: CP 2350#, TP 1525#, 20/64" CK, 35 BWPH, MED SAND, HEAVY GAS TTL BBLS RECOVERED: 2365 |
| 9:45 - | PROD 50 | BBLS LEFT TO RECOVER: 7089 WELL TURNED TO SALES @ 0945 HR ON 5/16/10 - 1600 MCFD, 840 BWPD, CP 2350#, FTP 1525#, CK 20/64" |
| 5/17/2010 7:00 - | 33 A | 7 AM FLBK REPORT: CP 2175#, TP 1450#, 20/64" CK, 25 BWPH, LIGHT SAND, 1980 GAS TTL BBLS RECOVERED: 3044 BBLS LEFT TO RECOVER: 6410 |

| Well: BONANZ | ZA 1023-10H1BS | [GREEN] Spud Conduc | ctor: 2/22/2010 | Spud Date: 2/26/2010 |
|---------------|-------------------|----------------------------|------------------|---|
| Project: UTAH | -UINTAH | Site: BONAN | ZA 1023-10A P | AD Rig Name No: SWABBCO 1/1 |
| Event: COMPL | ETION | Start Date: 5/ | 10/2010 | End Date: 5/14/2010 |
| Active Datum: | RKB @5,448.01 | ft (above Mean Sea Leve UW | I: NE/NE/0/10/S | S/23/E/10/0/0/6/PM/N/1,199.00/E/0/241.00/0/0 |
| Date | Time Start-End | Duration Phase Co | de Sub P Code | /U MD From Operation |
| 5/18/2010 | 7:00 - | 3: | 3 A | 7 AM FLBK REPORT: CP 2000#, TP 1350#, 20/64" CK, 20 BWPH, TRACE SAND, 2055 GAS TTL BBLS RECOVERED: 4477 BBLS LEFT TO RECOVER: 5877 |
| 5/19/2010 | 7:00 - | PROD | | WELL IP'D ON 5/19/10 - 2052 MCFD, 0 BOPD, 840 BWPD, CP 1900#, FTP 1275#, CK 20/64", LP 76#, 2 HRS |
| | 7:00 - | 3: | 3 В | 7 AM FLBK REPORT: CP 1900#, TP 1275#, 20/64" CK, 16 BWPH, TRACE SAND, 2069 GAS TTL BBLS RECOVERED: 4888 BBLS LEFT TO RECOVER: 5466 |

JUN 2 2 2010

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END OF WELL REPORT

Prepared For:

Kerr McGee Oil & Gas Onshore LP Bonanza 1023-10H1BS Bonanza 1023-10A Pad Ensign 139 Uintah County, UT

Prepared By:

Rex Hall, Grand Junction D.E.
Scientific Drilling
Rocky Mountain Region

Scientific Drilling International 7237 W. Barton Rd., Casper, WY 82604 P.O. Box 1600, Mills, WY 82644 (307) 472-6621 rex.hall@scientificdrilling.com

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- 1. Directional Plot and Surveys
- 2. Daily Drilling Reports
- 3. BHA Summary Reports and Slide Sheets
- 4. Graphical Job History
- 5. Support Staff

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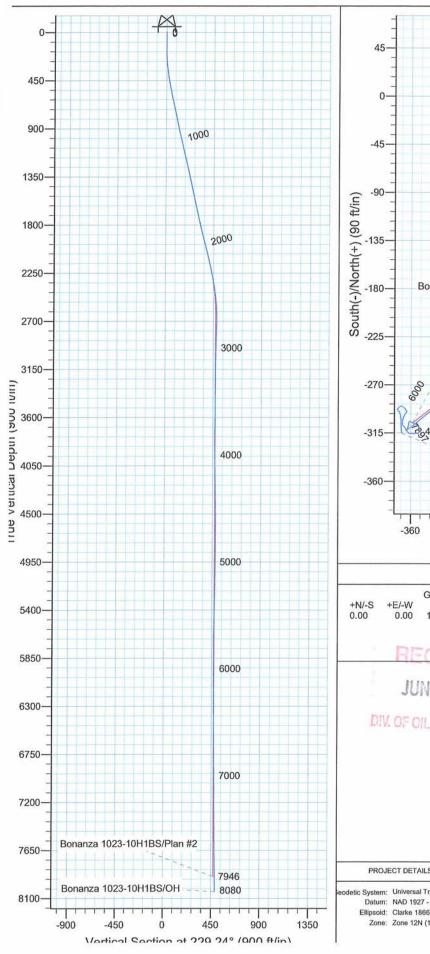
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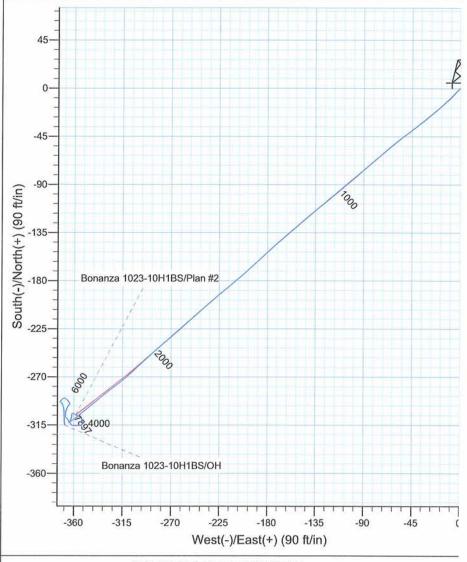


Site: Bonanza 1023-10A Pad Well: Bonanza 1023-10H1BS

Wellbore: OH Design: OH

Kerr McGee Oil and Gas Onshore LP





WELL DETAILS: Bonanza 1023-10H1BS

Ground Level: GL 5434' & RKB 14' @ 5448.00ft (Ensign 139) +E/-W Northing Easting 2115678.62 Longitude 109° 18' 13.820 W Latitude 14518701.13 39° 58' 2.719 N 0.00

JUN 2 2 2010

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REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Bonanza 1023-10H1BS, True North Vertical (TVD) Reference: GL 5434' & RKB 14' @ 5448.00ft (Ensign 139) Section (VS) Reference: Slot - (0.00N, 0.00E) Measured Depth Reference: GL 5434' & RKB 14' @ 5448.00ft (Ensign 139 Calculation Method: Minimum Curvature Local North: True Location: Sec 10 T10S R23E

PROJECT DETAILS: Uintah County, UT UTM12

Design: OH (Bonanza 1023-10H1BS/OH)

detic System: Universal Transverse Mercator (US Survey Feet) Datum: NAD 1927 - Western US

Zone: Zone 12N (114 W to 108 W)

Created By: Rex Hall Date: 2010-04-12



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 Bonanza 1023-10A Pad Bonanza 1023-10H1BS OH

Design: OH

Standard Survey Report

12 April, 2010

JUN 2 2 2010
DIV. OF CIL, GAS & MENING





Survey Report



Company:

Kerr McGee Oil and Gas Onshore LP

Project: Site:

Uintah County, UT UTM12 Bonanza 1023-10A Pad Bonanza 1023-10H1BS

Well: Weilbore: Design:

ОН ОН

Local Co-ordinate Reference: TVD Reference:

MD Reference:

North Reference: **Survey Calculation Method:**

Database:

Well Bonanza 1023-10H1BS

GL 5434' & RKB 14' @ 5448.00ft (Ensign 139) GL 5434' & RKB 14' @ 5448.00ft (Ensign 139)

Minimum Curvature EDM 2003.16 Multi-User Db

Project

Uintah County, UT UTM12

Map System:

Universal Transverse Mercator (US Survey Feet)

System Datum:

Geo Datum: Map Zone:

NAD 1927 - Western US

Zone 12N (114 W to 108 W)

Mean Sea Level

Site

Bonanza 1023-10A Pad, Sec 10 T10S R23E

Site Position:

Northing:

14,518,701.13 ft

Latitude:

39° 58' 2.719 N

From:

Lat/Long

Easting:

2,115,678.62 ft

Longitude:

Position Uncertainty:

0.00 ft

Slot Radius:

Grid Convergence:

109° 18' 13.820 W

1.09°

Well

Bonanza 1023-10H1BS, 1199' FNL & 241' FEL

Well Position

+N/-S +E/-W 0.00 ft 0.00 ft Northing: Easting:

14,518,701.13 ft

Latitude:

39° 58' 2.719 N

Position Uncertainty

0.00 ft

Wellhead Elevation:

2,115,678.62 ft

Longitude: **Ground Level:** 109° 18' 13.820 W

5,434.00 ft

Wellbore

ОН

Magnetics

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF2005-10

12/31/2009

11.16

65,93

52,510

Design

Audit Notes:

Version:

1.0

ОН

Phase:

ACTUAL

Tie On Depth:

10.00

Vertical Section:

Depth From (TVD) (ft) 10.00

+N/-S (ft) 0.00

+E/-W (ft) 0.00

Direction (°)

229.24

Survey Program

4/12/2010

From

То

(ft) (ft)

Survey (Wellbore)

8,090.00 Survey #2 - Production MWD (OH)

Tool Name

Description

105.00 2,070.00 2,015.00 Survey #1 - Surface (OH)

MWD SDI MWD SDI MWD - Standard ver 1.0.1 MWD - Standard ver 1.0.1

Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| 10,00 | 0.00 | 0.00 | 10.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 105.00 | 0.30 | 276.77 | 105.00 | 0.03 | -0.25 | 0.17 | 0.32 | 0.32 | 0.00 |
| First SDI Su | rface MWD Surv | rey | | | | | | | |
| 134.00 | 0.26 | 270.65 | 134.00 | 0.04 | -0.39 | 0.27 | 0.17 | -0.14 | -21.10 |
| 163.00 | 0.67 | 224.42 | 163.00 | -0.08 | -0.57 | 0.49 | 1.81 | 1.41 | -159.41 |
| 192.00 | 1.55 | 227.15 | 191.99 | -0.47 | -0.98 | 1.05 | 3.04 | 3.03 | 9.41 |
| 221.00 | 2.52 | 223.56 | 220.97 | -1.20 | -1.71 | 2.07 | 3,37 | 3.34 | -12.38 |
| 249.00 | 3.52 | 224.21 | 248.93 | -2.26 | -2.73 | 3.54 | 3.57 | 3.57 | 2.32 |
| 279.00 | 4,48 | 222.81 | 278.86 | -3.78 | -4.17 | 5.62 | 3.22 | 3.20 | -4.67 |
| 308.00 | 5.55 | 224.05 | 307.75 | -5.62 | -5.91 | 8.15 | 3.71 | 3.69 | 4.28 |
| 338.00 | 6.55 | 224.08 | 337.58 | -7.89 | -8.11 | 11.30 | 3.33 | 3.33 | 0.10 |
| 367.00 | 7.56 | 226.08 | 366.36 | -10.40 | -10.64 | 14.85 | | 3.48 | 6.90 |



Survey Report



Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12 Site: Bonanza 1023-10A Pad Well: Bonanza 1023-10H1BS

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method: Database: Well Bonanza 1023-10H1BS

GL 5434' & RKB 14' @ 5448.00ft (Ensign 139) GL 5434' & RKB 14' @ 5448.00ft (Ensign 139)

True

Minimum Curvature EDM 2003.16 Multi-User Db

| у | | | | | | | | | |
|---------------------------|--------------------|----------------|---------------------------|--------------------|--------------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 397.00 | | 227.57 | 396.07 | -13.27 | -13.70 | 19.04 | 3.31 | 3.23 | 4.97 |
| 425.00 | 0 9.35 | 228.51 | 423.73 | -16.18 | -16.94 | 23.39 | 2.97 | 2.93 | 3.36 |
| 454.00 | 0 10.22 | 228.92 | 452.30 | -19.43 | -20.64 | 28.32 | 3.01 | 3.00 | 1.41 |
| 484.00 | | 229.18 | 481.80 | -23.03 | -24.79 | 33.81 | 2.17 | 2.17 | 0.87 |
| 514.00 | 0 11.49 | 230.12 | 511.23 | -26.79 | -29.22 | 39.63 | 2.15 | 2.07 | 3.13 |
| 544.00 | | 231.29 | 540.62 | -30.60 | -33.88 | 45.64 | 0.95 | 0.53 | 3.90 |
| 574.00 | | 232.84 | 570.00 | -34.33 | -38.66 | 51.70 | 1.05 | 0.07 | 5.17 |
| 604.00 | | 232.85 | 599.38 | -38.00 | -43.50 | 57.76 | 0.10 | 0.10 | 0.03 |
| 634.00 | | 232.83 | 628.75 | -41.68 | -48.35 | 63.84 | 0.07 | 0.07 | -0.07 |
| | | | | | | | | | |
| 665.00 | | 232.65 | 659.10 | -45.51 | -53.39 | 70.16 | 0.44 | 0.42 | -0.58 |
| 695.00 | | 231.50 | 688.46 | -4 9.31 | -58.26 | 76.33 | 0.81 | 0.20 | -3.83 |
| 725.00 | | 230.25 | 717.81 | -53.21 | -63.06 | 82.51 | 0.86 | -0.07 | -4.17 |
| 755.00 | | 229.05 | 747.17 | -57.22 | -67.79 | 88.70 | 0.85 | 0.20 | -4.00 |
| 845.00 | 12.29 | 229.21 | 835.16 | -69.59 | -82.08 | 107.60 | 0.38 | 0.38 | 0.18 |
| 935.00 | 12.72 | 229.31 | 923.02 | -82.31 | -96.84 | 127.09 | 0.48 | 0.48 | 0.11 |
| 1,025.00 | | 229.54 | 1,010.72 | -95.48 | -112.22 | 147.34 | 0.64 | 0.63 | 0.26 |
| 1,115.00 | | 230.11 | 1,098.35 | -108.71 | -127.90 | 167.85 | 0.29 | -0.26 | 0.63 |
| 1,205.00 | | 230.27 | 1,185.94 | -121.95 | -143.78 | 188.52 | 0.49 | 0.49 | 0.18 |
| 1,205.00 | | 229.43 | 1,273.52 | -135.31 | -159.62 | 209.24 | 0.47 | -0.42 | -0.93 |
| | | | | | | | | | |
| 1,385.00 | | 228.19 | 1,361.29 | -148.41 | -174.60 | 229.15 | 0.81 | -0.76 | -1.38 |
| 1,475.00 | | 226.40 | 1,449.22 | -161.42 | -188.70 | 248.32 | 0.51 | -0.29 | -1.99 |
| 1,565.00 | | 228.70 | 1,537.23 | -174.12 | -202.58 | 267.13 | 0.59 | -0.24 | 2.56 |
| 1,655.00 | | 230.62 | 1,625.24 | -186.30 | -216.93 | 285.95 | 0.51 | 0.24 | 2.13 |
| 1,745.00 | 12.52 | 229.37 | 1,713.16 | -198.68 | -231.67 | 305.19 | 0.48 | 0.38 | -1.39 |
| 1,835.00 | 13.26 | 228.67 | 1,800.89 | -211.85 | -246,82 | 325.27 | 0.84 | 0.82 | -0.78 |
| 1,925.00 | | 227.88 | 1,888.43 | -225.77 | -262.44 | 346.19 | 0.45 | 0.40 | -0.88 |
| 2,015.00 | | 228.78 | 1,975.86 | -239.98 | -278.40 | 367.55 | 0.35 | 0.26 | 1.00 |
| | Surface MWD Surv | | • | | | | | | |
| 2,070.00 | | 228.33 | 2,029.24 | -248.73 | -288.31 | 380.78 | 0.31 | 0.24 | -0.82 |
| First SDI F | Production MWD S | urvev | | | | | | | |
| 2,161.00 | | 225.51 | 2,117.68 | -263.36 | -303.98 | 402.20 | 1.06 | -0.77 | -3.10 |
| 2,251.00 | 12.93 | 232.98 | 2,205.34 | -276.67 | -319.39 | 422.56 | 1.92 | -0.39 | 8.30 |
| 2,342.00 | | 230.26 | 2,294.28 | -288.61 | -334.51 | 441.81 | 1.67 | -1.55 | -2.99 |
| 2,432.00 | | 230.00 | 2,382.83 | -298.87 | -346.80 | 457.81 | 2.83 | -2.83 | -0.29 |
| 2,523.00 | | 230.79 | 2,473.02 | -306.60 | -356.12 | 469.92 | 2.90 | -2.90 | 0.87 |
| 2,613.00 | | 237.82 | 2,562.65 | -311.39 | -362.60 | 477.96 | 2.72 | -2.63 | 7.81 |
| | | | 0.650.50 | -312.75 | -364.88 | 480.57 | 5.03 | -3.67 | 188.63 |
| 2,704.00 | | 49.47 | 2,653.58 | | | 479.71 | 0.32 | -0.10 | 30.52 |
| 2,795.00 | | 77.24 | 2,744.58 | -312.34 | -364.10 | 477.70 | 2.36 | 2.04 | -62.40 |
| 2,885.00 | | 21.08 | 2,834.55 | -310.51 | -363.02 | 477.70 | 0.89 | -0.77 | -02.40 -13.13 |
| 2,976.00 | | 9.13 358.93 | 2,925.49 3,015.47 | -307.44 -305.53 | -362.14 -361.94 | 473.63 | 1.00 | -0.77 -0.98 | -11.33 |
| 3,066.00 | 0.79 | | 3,015.47 | | | | | | |
| 3,157.00 | | 32.33 | 3,106.47 | -304.54 | -361.73 | 472.82 | 0.50 | -0.29 | 36.70 |
| 3,247.00 | | 79.18 | 3,196.46 | -304.13 | -361.17 | 472.13 | 0.44 | -0.10 | 52.06 |
| 3,338.00 | | 121.27 | 3,287.46 | -304.28 | -360.46 | 471.69 | 0.39 | 0.10 | 46.25 |
| 3,429.00 | | 131.03 | 3,378.46 | -304.82 | -359.73 | 471.49 | 0.15 | 0.10 | 10.73 |
| 3,519.00 | 0.88 | 94.56 | 3,468.45 | -305.20 | -358.67 | 470.94 | 0.59 | 0.29 | -40.52 |
| 3,610.00 | 1.14 | 127.78 | 3,559.43 | -305.81 | -357.26 | 470.27 | 0.69 | 0.29 | 36.51 |
| 3,700.00 | | 119.25 | 3,649.42 | -306.73 | -355.89 | 469.83 | 0.26 | -0.19 | -9.48 |
| 3,791.00 | | 118.55 | 3,740.40 | -307.64 | -354.23 | 469.17 | 0.48 | 0.48 | -0.77 |
| 3,881.00 | | 151.16 | 3,830.37 | -309.25 | -352.66 | 469.04 | 0.95 | 0.19 | 36.23 |
| 3,972.00 | | 169.79 | 3,921.34 | -311.52 | -351.85 | 469.90 | 0.55 | -0.10 | 20.47 |
| | | | | | | | | | |
| 4,062.00 | | 183.33 | 4,011.32 | -313.29 | -351.68 | 470.92 | 0.83 | -0.78 | 15.04 |
| 4,153.00 | | 222.26 | 4,102.31 | -314.38 | -352.14 | 471.98 | 0.58 | 0.00 | 42.78 |
| 4,243.00 | 1.85 | 253.11 | 4,192.29 | -315.26 | -353.94 | 1 44393 | 11.38 | 1.18 | 34.28 |

Scientific Drilling Rocky Mountain Operations

Survey Report



Company:

Kerr McGee Oil and Gas Onshore LP

Project: Site:

Uintah County, UT UTM12 Bonanza 1023-10A Pad Bonanza 1023-10H1BS

Well: Wellbore:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method: Database:

Well Bonanza 1023-10H1BS

GL 5434' & RKB 14' @ 5448.00ft (Ensign 139) GL 5434' & RKB 14' @ 5448.00ft (Ensign 139)

Minimum Curvature

| : OH | | | | Database | | | DM 2003.16 M | uiu-User DD | · · · · · · · · · · · · · · · · · · · |
|--------------|---------------|---------|----------|----------|-----------------|----------|--------------|-------------|---------------------------------------|
| • | | | | | | | | | |
| Measured | | | Vertical | | | Vertical | Dogleg | Build | Turn |
| Depth | Inclination | Azimuth | Depth | +N/-S | +E/-W | Section | Rate | Rate | Rate |
| (ft) | (°) | (°) | (ft) | (ft) | (ft) | (ft) | (°/100ft) | (°/100ft) | (°/100ft) |
| 4,334.00 | 2.20 | 274.29 | 4,283.23 | -315.56 | -357.09 | 476.50 | 0.90 | 0.38 | 23.27 |
| 4,425.00 | 2.02 | 267.44 | 4,374.17 | -315.50 | -360.43 | 479.00 | 0.34 | -0.20 | -7.53 |
| 4,515.00 | 1.41 | 332.21 | 4,464.14 | -314.59 | -362.54 | 480.00 | 2.12 | -0.68 | 71.97 |
| 4,606.00 | 1.23 | 322.81 | 4,555.11 | -312.82 | -363.65 | 479.68 | 0.31 | -0.20 | -10.33 |
| 4,696.00 | 0.97 | 330.45 | 4,645.10 | -311.39 | -364.61 | 479.48 | 0.33 | -0.29 | 8.49 |
| 4,787.00 | 0.88 | 313.84 | 4,736.09 | -310.23 | -365.49 | 479.39 | 0.31 | -0.10 | -18.25 |
| 4,877.00 | 0.70 | 327.99 | 4,826.08 | -309.29 | -366.28 | 479.37 | 0.29 | -0.20 | 15.72 |
| 4,968.00 | 0.88 | 321.67 | 4,917.07 | -308.27 | -367.01 | 479.26 | 0.22 | 0.20 | -6.95 |
| 5,058.00 | 0.53 | 295.74 | 5,007.06 | -307.55 | - 367.81 | 479.40 | 0.52 | -0.39 | - 28.81 |
| 5,149.00 | 2.02 | 7.72 | 5,098.04 | -305.77 | -367.98 | 478.36 | 2.11 | 1.64 | 79.10 |
| 5,239.00 | 1.49 | 6.23 | 5,188.00 | -303.04 | -367.64 | 476.32 | 0.59 | -0.59 | -1.66 |
| 5,330.00 | 1.41 | 21.69 | 5,278.97 | -300.82 | -367.09 | 474.46 | 0.44 | -0.09 | 16.99 |
| 5,420.00 | 1,23 | 21.78 | 5,368.94 | -298.90 | -366.33 | 472.62 | 0.20 | -0.20 | 0.10 |
| 5,511.00 | 1.14 | 42.00 | 5,459.93 | -297.32 | -365.36 | 470.86 | 0.47 | -0.10 | 22.22 |
| 5,601.00 | 1.14 | 41.82 | 5,549.91 | -295.99 | -364.16 | 469.08 | 0.00 | 0.00 | -0.20 |
| 5,692.00 | 0.79 | 333.88 | 5,640.90 | -294.75 | -363.84 | 468.03 | 1.23 | -0.38 | -74.66 |
| 5,782.00 | 0.79 | 321.05 | 5,730.89 | -293.71 | -364.50 | 467.85 | 0.20 | 0.00 | -14.26 |
| 5,873.00 | 0.70 | 326.94 | 5,821.88 | -292.75 | -365.20 | 467.75 | 0.13 | -0.10 | 6.47 |
| 5,964.00 | 0.88 | 317.71 | 5,912.87 | -291.77 | -365.97 | 467.70 | 0.24 | 0.20 | -10.14 |
| 6,054.00 | 0.88 | 300.22 | 6,002.86 | -290.91 | -367.03 | 467.94 | 0.30 | 0.00 | -19.43 |
| 6,145.00 | 0.62 | 298.02 | 6,093.85 | -290.33 | -368.07 | 468.35 | 0.29 | -0.29 | -2.42 |
| 6,235.00 | 0.44 | 300.40 | 6,183.85 | -289.93 | -368.80 | 468.64 | 0.20 | -0.20 | 2.64 |
| 6,389.00 | 0.79 | 232.28 | 6,337.84 | -290.28 | -370.15 | 469.89 | 0.49 | 0.23 | -44.23 |
| 6,416.00 | 0.88 | 221.82 | 6,364.84 | -290.54 | -370.43 | 470.28 | 0.65 | 0.33 | -38.74 |
| 6,507.00 | 0.97 | 228.85 | 6,455.83 | -291.57 | -371,48 | 471.74 | 0.16 | 0.10 | 7.73 |
| 6,598.00 | 0.97 | 224.72 | 6,546.81 | -292.63 | -372.60 | 473.28 | 0.08 | 0.00 | -4.54 |
| 6,688.00 | 0.97 | 131.82 | 6,636.81 | -293.68 | -372.57 | 473.94 | 1.56 | 0.00 | -103.22 |
| 6,779.00 | 0.70 | 129.62 | 6,727.80 | -294.54 | -371.57 | 473.75 | 0.30 | -0.30 | -2.42 |
| 6,869.00 | 88.0 | 151.25 | 6,817.79 | -295.50 | -370.81 | 473.80 | 0.38 | 0.20 | 24.03 |
| 6,960.00 | 0.88 | 162.14 | 6,908.78 | -296.78 | -370.26 | 474.22 | 0.18 | 0.00 | 11.97 |
| 7,051.00 | 1.14 | 169.88 | 6,999.76 | -298.33 | -369.89 | 474.95 | 0.32 | 0.29 | 8.51 |
| 7,141.00 | 1.41 | 165.75 | 7,089.74 | -300.29 | -369.46 | 475.90 | 0.32 | 0.30 | -4.59 |
| 7,232.00 | 0.88 | 183.33 | 7,180.72 | -302.07 | -369.22 | 476.89 | 0.69 | -0.58 | 19.32 |
| 7,277.00 | 0.88 | 176.56 | 7,225.72 | -302.76 | -369.22 | 477.34 | 0.23 | 0.00 | -15.04 |
| | duction MWD S | | | | | | | 2.25 | 2.55 |
| 8,090.00 | 0.88 | 176.56 | 8,038.62 | -315.22 | -368.47 | 484.91 | 0.00 | 0.00 | 0.00 |
| Projection T | o TD | | | | | | | | |

| Targets | | | | | | | | | |
|---|------------------|-----------------------|----------------------------|--------------------------|--------------------------|-----------------------------------|-----------------|------------------|-------------------|
| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
| B 1023-10H1BS PBHL - actual wellpath mis - Circle (radius 25.00 | | 0.00 iter by 12.82 | 7,896.00 Ift at 7947.26 | -305.58 ft MD (7895.9 | -358.18 0 TVD, -313.0 | 14,518,388.79 04 N, -368.60 E) | 2,115,326.31 | 39° 57' 59.699 N | 109° 18' 18,421 W |

Approved By:

Date:

Checked By:



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 Bonanza 1023-10A Pad Bonanza 1023-10H1BS OH

Design: OH

Survey Report - Geographic

12 April, 2010

JUN 2 2 2010

DIV. OF CIL, GAS & MINING





Survey Report - Geographic



Company:

Kerr McGee Oil and Gas Onshore LP

Project: Site:

Uintah County, UT UTM12 Bonanza 1023-10A Pad Bonanza 1023-10H1BS

Well: Wellbore: Design:

OH ОН

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method:

Database:

Well Bonanza 1023-10H1BS

GL 5434' & RKB 14' @ 5448.00ft (Ensign 139) GL 5434' & RKB 14' @ 5448.00ft (Ensign 139)

Minimum Curvature

EDM 2003.16 Multi-User Db

Project

Uintah County, UT UTM12

Map System:

Universal Transverse Mercator (US Survey Feet)

System Datum:

Mean Sea Level

Geo Datum:

NAD 1927 - Western US

Map Zone:

Site

Zone 12N (114 W to 108 W)

Bonanza 1023-10A Pad, Sec 10 T10S R23E

Site Position:

From:

Lat/Long

Northing: Easting:

14,518,701.13 ft 2,115,678.62 ft

Latitude:

Longitude:

39° 58' 2.719 N

109° 18' 13.820 W

Position Uncertainty:

0.00 ft

Slot Radius:

Grid Convergence:

1.09°

Well

Bonanza 1023-10H1BS, 1199' FNL & 241' FEL

Well Position

+N/-S +E/-W

0.00 ft

Northing: Easting:

14,518,701.13 ft

Latitude: Longitude: 39° 58' 2.719 N

Position Uncertainty

0.00 ft 0.00 ft

Wellhead Elevation:

2,115,678.62 ft ft

Ground Level:

109° 18' 13.820 W 5,434.00 ft

ОН

Magnetics

Wellbore

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF2005-10

12/31/2009

11.16

65.93

52,510

Design

Audit Notes:

Version:

1.0

ОН

Phase:

ACTUAL

Tie On Depth:

10.00

Vertical Section:

Depth From (TVD) (ft)

10.00

+N/-S (ft) 0.00

+E/-W (ft) 0.00

Direction (°)

229.24

Survey Program

4/12/2010 Date

From (ft)

To

Survey (Wellbore)

Tool Name

Description

105.00 2.070.00

2,015.00 Survey #1 - Surface (OH) 8,090.00 Survey #2 - Production MWD (OH) MWD SDI MWD SDI

MWD - Standard ver 1.0.1 MWD - Standard ver 1.0.1

MECEVED

JUN 2 2 2010

DIV. OF OIL, GAS & MINING

Scientific Drilling
Rocky Mountain Operations

Survey Report - Geographic



Company:

Kerr McGee Oil and Gas Onshore LP

Project: Site: Uintah County, UT UTM12 Bonanza 1023-10A Pad Bonanza 1023-10H1BS

Well: Wellbore: Design:

OH OH nd Gae Onehoro I P

Local Co-ordinate Reference: TVD Reference: MD Reference:

North Reference: Survey Calculation Method:

Database:

Well Bonanza 1023-10H1BS

GL 5434' & RKB 14' @ 5448.00ft (Ensign 139) GL 5434' & RKB 14' @ 5448.00ft (Ensign 139)

True

Minimum Curvature

EDM 2003.16 Multi-User Db

| easured Depth | Inclination | Azimuth | Vertical Depth | +N/-S | +E/-W | Map Northing | Map Easting | | |
|------------------|--------------|------------|-------------------|--------------------|--------------------|-----------------|----------------|------------------|-------------------------|
| (ft) | (°) | (°) | (ft) ~ | (ft) | (ft) | (ft) | (ft) | Latitude | Longitude |
| 10.00 | 0.00 | 0.00 | 10.00 | 0.00 | 0.00 | 14,518,701.13 | 2,115,678.62 | 39° 58' 2.719 N | 109° 18' 13.820 |
| 105.00 | 0.30 | 276.77 | 105.00 | 0.03 | -0.25 | 14,518,701.15 | 2,115,678.37 | 39° 58' 2.719 N | 109° 18' 13.823 |
| First SDI | Surface MWI | | | | | | | | |
| 134.00 | 0.26 | 270.65 | 134.00 | 0.04 | -0.39 | 14,518,701.16 | 2,115,678.23 | 39° 58' 2.719 N | 109° 18' 13.82 |
| 163.00 | 0.67 | 224.42 | 163.00 | -0.08 | -0.57 | 14,518,701.04 | 2,115,678.04 | 39° 58' 2.718 N | 109° 18' 13.82' |
| 192.00 | 1.55 | 227.15 | 191.99 | -0.47 | -0.98 | 14,518,700.64 | 2,115,677.65 | 39° 58' 2.714 N | 109° 18' 13.83 |
| 221.00 | 2.52 | 223.56 | 220.97 | -1.20 | -1.71 | 14,518,699.90 | 2,115,676.93 | 39° 58' 2.707 N | 109° 18' 13.84 |
| 249.00 | 3.52 | 224.21 | 248.93 | -2.26 | -2.73 | 14,518,698.82 | 2,115,675.93 | 39° 58' 2.697 N | 109° 18' 13.85 |
| 279.00 | 4.48 | 222.81 | 278.86 | -3.78 | -4 .17 | 14,518,697.27 | 2,115,674.52 | 39° 58' 2.682 N | 109° 18' 13.87 |
| 308.00 | 5.55 | 224.05 | 307.75 | -5.62 | -5.91 | 14,518,695.40 | 2,115,672.81 | 39° 58' 2.663 N | 109° 18' 13.89 |
| 338.00 | 6.55 | 224.08 | 337.58 | -7.89 | -8.11 | 14,518,693.09 | 2,115,670.66 | 39° 58' 2.641 N | 109° 18' 13,92 |
| 367.00 | 7.56 | 226.08 | 366.36 | -10.40 | -10.64 | 14,518,690.53 | 2,115,668.18 | 39° 58' 2.616 N | 109° 18' 13.95 |
| 397.00 | 8.53 | 227.57 | 396.07 | -13.27 | -13.70 | 14,518,687.60 | 2,115,665.17 | 39° 58' 2.588 N | 109° 18' 13.99 |
| 425.00 | 9.35 | 228.51 | 423.73 | -16.18 | -16.94 | 14,518,684.63 | 2,115,661.99 | 39° 58' 2.559 N | 109° 18' 14.03 |
| 454.00 | 10.22 | 228.92 | 452.30 | -19.43 | -20.64 | 14,518,681.31 | 2,115,658.35 | 39° 58' 2.527 N | 109° 18' 14.08 |
| 484.00 | 10.87 | 229.18 | 481.80 | -23.03 | -24.79 | 14,518,677.63 | 2,115,654.27 | 39° 58' 2.491 N | 109° 18' 14.13 |
| 514.00 | 11.49 | 230.12 | 511.23 | -26.79 | -29.22 | 14,518,673.78 | 2,115,649.91 | 39° 58' 2.454 N | 109° 18' 14.19 |
| 544.00 | 11.65 | 231.29 | 540.62 | -30.60 | -33,88 | 14,518,669.89 | 2,115,645.33 | 39° 58' 2.417 N | 109° 18' 14.25 |
| 574.00 | 11.67 | 232.84 | 570.00 | -34.33 | -38.66 | 14,518,666.07 | 2,115,640.62 | 39° 58' 2.380 N | 109° 18' 14.31 |
| 604.00 | 11.70 | 232.85 | 599.38 | -38.00 | -43.50 | 14,518,662.31 | 2,115,635.84 | 39° 58' 2.343 N | 109° 18' 14.37 |
| 634.00 | 11.72 | 232.83 | 628.75 | -41.68 | -48.35 | 14,518,658.54 | 2,115,631.06 | 39° 58' 2.307 N | 109° 18' 14.44 |
| 665.00 | 11.85 | 232.65 | 659.10 | -45.51 | -53.39 | 14,518,654.61 | 2,115,626.10 | 39° 58' 2.269 N | 109° 18' 14.50 |
| 695.00 | 11.91 | 231.50 | 688.46 | -49.31 | -58.26 | 14,518,650.72 | 2,115,621.30 | 39° 58' 2.232 N | 109° 18' 14.56 |
| 725.00 | 11.89 | 230.25 | 717.81 | -53.21 | -63.06 | 14,518,646.73 | 2,115,616.58 | 39° 58' 2.193 N | 109° 18' 14.63 |
| 755.00 | 11.95 | 229.05 | 747.17 | -57.22 | -67.79 | 14,518,642,63 | 2,115,611.93 | 39° 58' 2.153 N | 109° 18' 14.69 |
| 845.00 | 12.29 | 229.21 | 835.16 | -69.59 | -82.08 | 14,518,629.99 | 2,115,597.88 | 39° 58' 2,031 N | 109° 18' 14.87 |
| 935.00 | 12.72 | 229.31 | 923.02 | -82.31 | -96.84 | 14,518,617.00 | 2,115,583.36 | 39° 58' 1.905 N | 109° 18' 15.06 |
| 1,025.00 | 13.29 | 229.54 | 1,010.72 | -95.48 | -112.22 | 14,518,603.53 | 2,115,568.23 | 39° 58' 1.775 N | 109° 18' 15.26 |
| 1,115.00 | 13.06 | 230.11 | 1,098.35 | -108.71 | -127.90 | 14,518,590.00 | 2,115,552.81 | 39° 58' 1.644 N | 109° 18' 15.46 |
| 1,205.00 | 13.50 | 230.27 | 1,185.94 | -121.95 | -143.78 | 14,518,576.47 | 2,115,537.18 | 39° 58' 1.514 N | 109° 18' 15.66 |
| 1,205.00 | 13.12 | 229.43 | 1,273.52 | -135.31 | -159.62 | 14,518,562.81 | 2,115,521.60 | 39° 58' 1.382 N | 109° 18' 15.87 |
| | 12.44 | 228.19 | 1,361.29 | -148.41 | -174.60 | 14,518,549.42 | 2,115,506.87 | 39° 58' 1.252 N | 109° 18' 16.06 |
| 1,385.00 | 12.44 | 226.19 | 1,449.22 | -161.42 | -188.70 | 14,518,536.15 | 2,115,493.02 | 39° 58' 1.124 N | 109° 18' 16.24 |
| 1,475.00 | | 228.70 | 1,537.23 | -101.42 -174.12 | -202.58 | 14,518,523.18 | 2,115,479.38 | 39° 58' 0.998 N | 109° 18' 16.42 |
| 1,565.00 | 11.96 | 230.62 | 1,625.24 | -174.12 | -202.38 -216.93 | 14,518,510.73 | 2,115,465.27 | 39° 58' 0,878 N | 109° 18' 16.60 |
| 1,655.00 | 12,18 | 230.62 | • | -198.68 | -210.93 -231.67 | 14,518,498.08 | 2,115,450.77 | 39° 58' 0.755 N | 109° 18' 16.79 |
| 1,745.00 | 12.52 | | 1,713.16 | | | | 2,115,435.86 | 39° 58' 0.625 N | 109° 18' 16.99 |
| 1,835.00 | 13.26 | 228.67 | 1,800.89 | -211.85 | -246.82 | 14,518,484.63 | | 39° 58' 0.487 N | 109° 18' 17.19 |
| 1,925.00 | 13.62 | 227.88 | 1,888.43 | -225.77 | -262.44 | 14,518,470.41 | 2,115,420.52 | | 109° 18' 17.18 |
| 2,015.00 | 13.85 | 228.78 | 1,975.86 | -239.98 | -278.40 | 14,518,455.90 | 2,115,404.83 | 39° 58' 0.347 N | 109 10 17.38 |
| Last SDI | Surface MWD | - | | | | | | | |
| 2,070.00 | 13.98 | 228.33 | 2,029.24 | -248.73 | -288.31 | 14,518,446.96 | 2,115,395.09 | 39° 58' 0.261 N | 109° 18' 17.52 |
| First SDI | Production N | IWD Survey | | | | | | | |
| 2,161.00 | 13.28 | 225.51 | 2,117.68 | -263.36 | -303.98 | 14,518,432.03 | 2,115,379.70 | 39° 58' 0.116 N | 109° 18' 17.72 |
| 2,251.00 | 12.93 | 232.98 | 2,205.34 | -276.67 | -319.39 | 14,518,418.43 | 2,115,364.54 | 39° 57' 59.984 N | 109° 18' 1 7. 92 |
| 2,342.00 | 11.52 | 230.26 | 2,294.28 | -288.61 | -334.51 | 14,518,406.21 | 2,115,349.65 | 39° 57' 59.866 N | 109° 18' 18.11 |
| 2,432.00 | 8.97 | 230.00 | 2,382,83 | -298.87 | -346.80 | 14,518,395.72 | 2,115,337.56 | 39° 57' 59.765 N | 109° 18' 18.27 |
| 2,523.00 | 6.33 | 230.79 | 2,473.02 | -306.60 | -356.12 | 14,518,387.81 | 2,115,328.39 | 39° 57' 59.689 N | 109° 18' 18.39 |
| 2,613.00 | 3.96 | 237.82 | 2,562.65 | -311.39 | -362.60 | 14,518,382.90 | 2,115,322.01 | 39° 57' 59.641 N | 109° 18' 18.47 |
| 2,704.00 | 0.62 | 49.47 | 2,653.58 | -312.75 | -364.88 | 14,518,381.50 | 2,115,319.75 | 39° 57' 59.628 N | 109° 18' 18.50 |
| 2,795.00 | 0.53 | 77.24 | 2,744.58 | -312.34 | -364.10 | 14,518,381.93 | 2,115,320.52 | 39° 57' 59.632 N | 109° 18' 18.49 |
| 2,885.00 | 2.37 | 21.08 | 2,834.55 | -310.51 | -363.02 | 14,518,383.77 | 2,115,321.56 | 39° 57' 59.650 N | 109° 18' 18.48 |
| 2,976.00 | 1.67 | 9.13 | 2,925.49 | -307.44 | -362.14 | 14,518,386.86 | 2,115,322.39 | 39° 57' 59.680 N | 109° 18' 18.47 |
| 3,066.00 | 0.79 | 358.93 | 3,015.47 | -305.53 | -361.94 | 14,518,388.77 | 2,115,322.55 | 39° 57' 59.699 N | 109° 18' 18.46 |
| 3,157.00 | 0.53 | 32.33 | 3,106.47 | -304.54 | -361.73 | 14,518,389.76 | 2,115,322.75 | 39° 57' 59.709 N | 109° 18' 18.46 |
| 3,247.00 | 0.44 | 79.18 | 3,196.46 | -304.13 | -361.17 | 14,518,390.19 | 2,115,323.30 | 39° 57' 59.713 N | 109° 18' 18.45 |



Survey Report - Geographic



Company:

Kerr McGee Oil and Gas Onshore LP

Project: Site:

Design:

Uintah County, UT UTM12 Bonanza 1023-10A Pad Bonanza 1023-10H1BS

Well: Wellbore:

OH OH Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Database:

Well Bonanza 1023-10H1BS

GL 5434' & RKB 14' @ 5448.00ft (Ensign 139) GL 5434' & RKB 14' @ 5448.00ft (Ensign 139)

True

Minimum Curvature

EDM 2003.16 Multi-User Db

| leasured | | | Vertical | | | Мар | Мар | | |
|----------------------|----------------------|---------|----------|-----------------|---------|---------------|--------------|------------------|----------------|
| Depth | Inclination | Azimuth | Depth | +N/-S | +E/-W | Northing | Easting | | |
| (ft) | (°) | (°) | (ft) | (ft) | (ft) | (ft) | (ft) | Latitude | Longitude |
| 3,338.00 | 0.53 | 121.27 | 3,287.46 | -304.28 | -360.46 | 14,518,390.05 | 2,115,324.01 | 39° 57' 59.711 N | 109° 18' 18.45 |
| 3,429.00 | 0.62 | 131.03 | 3,378.46 | -304.82 | -359.73 | 14,518,389.52 | 2,115,324.75 | 39° 57' 59.706 N | 109° 18' 18.44 |
| 3,519.00 | 0.88 | 94.56 | 3,468.45 | -305.20 | -358.67 | 14,518,389.17 | 2,115,325.81 | 39° 57' 59.702 N | 109° 18' 18.42 |
| 3,610.00 | 1.14 | 127.78 | 3,559.43 | -305.81 | -357.26 | 14,518,388.58 | 2,115,327.23 | 39° 57' 59.696 N | 109° 18' 18.40 |
| 3,700.00 | 0.97 | 119.25 | 3,649.42 | -306.73 | -355.89 | 14,518,387.69 | 2,115,328.62 | 39° 57' 59.687 N | 109° 18' 18.39 |
| 3,791.00 | 1.41 | 118.55 | 3,740.40 | -307.64 | -354.23 | 14,518,386.81 | 2,115,330.30 | 39° 57' 59,678 N | 109° 18' 18.37 |
| 3,881.00 | 1.58 | 151.16 | 3,830.37 | -309.25 | -352.66 | 14,518,385.22 | 2,115,331.90 | 39° 57' 59.662 N | 109° 18' 18.35 |
| 3,972.00 | 1.49 | 169.79 | 3,921.34 | -311.52 | -351.85 | 14,518,382.98 | 2,115,332.76 | 39° 57' 59.640 N | 109° 18' 18.33 |
| 4,062.00 | 0.79 | 183.33 | 4,011.32 | -313.29 | -351.68 | 14,518,381.21 | 2,115,332.96 | 39° 57' 59.622 N | 109° 18' 18.33 |
| 4,153.00 | 0.79 | 222.26 | 4,102.31 | -314.38 | -352.14 | 14,518,380.11 | 2,115,332.52 | 39° 57' 59.612 N | 109° 18' 18.34 |
| 4,243.00 | 1.85 | 253.11 | 4,192.29 | -315.26 | -353.94 | 14,518,379.19 | 2,115,330.73 | 39° 57' 59.603 N | 109° 18' 18.36 |
| 4,334.00 | 2.20 | 274.29 | 4,283.23 | -315.56 | -357.09 | 14,518,378.84 | 2,115,327.59 | 39° 57' 59.600 N | 109° 18' 18.40 |
| 4,425.00 | 2.02 | 267.44 | 4,374.17 | -315.50 | -360.43 | 14,518,378.83 | 2,115,324.25 | 39° 57′ 59.601 N | 109° 18′ 18.45 |
| 4,515.00 | 1.41 | 332.21 | 4,464.14 | -314.59 | -362.54 | 14,518,379.70 | 2,115,322.13 | 39° 57' 59.610 N | 109° 18' 18.47 |
| 4,606.00 | 1,23 | 322.81 | 4,555.11 | -312.82 | -363.65 | 14,518,381.45 | 2,115,320.98 | 39° 57' 59.627 N | 109° 18' 18.49 |
| 4,696.00 | 0.97 | 330.45 | 4,645.10 | -311.39 | -364.61 | 14,518,382.86 | 2,115,320.00 | 39° 57' 59.641 N | 109° 18' 18.50 |
| 4,787.00 | 0.88 | 313.84 | 4,736.09 | -310.23 | -365.49 | 14,518,384.00 | 2,115,319.09 | 39° 57' 59.653 N | 109° 18' 18.51 |
| 4,877.00 | 0.70 | 327.99 | 4,826.08 | -309.29 | -366.28 | 14,518,384.93 | 2,115,318.28 | 39° 57' 59.662 N | 109° 18' 18.52 |
| 4,968.00 | 0.88 | 321,67 | 4,917.07 | -308.27 | -367.01 | 14,518,385.93 | 2,115,317.54 | 39° 57' 59.672 N | 109° 18' 18.53 |
| 5,058.00 | 0.53 | 295.74 | 5,007.06 | -307.55 | -367.81 | 14,518,386.64 | 2,115,316.72 | 39° 57' 59.679 N | 109° 18' 18.54 |
| 5,149.00 | 2.02 | 7.72 | 5,098.04 | -305.77 | -367.98 | 14,518,388.41 | 2,115,316.52 | 39° 57' 59.697 N | 109° 18' 18.54 |
| 5,239.00 | 1.49 | 6.23 | 5,188.00 | -303.04 | -367.64 | 14,518,391.15 | 2,115,316.81 | 39° 57' 59.724 N | 109° 18' 18.54 |
| 5,330.00 | 1.41 | 21.69 | 5,278.97 | -300.82 | -367.09 | 14,518,393.38 | 2,115,317.31 | 39° 57' 59.746 N | 109° 18' 18.53 |
| 5,420.00 | 1.23 | 21.78 | 5,368.94 | -298.90 | -366.33 | 14,518,395.32 | 2,115,318.04 | 39° 57' 59.765 N | 109° 18' 18.52 |
| 5,511.00 | 1.14 | 42.00 | 5,459.93 | - 297.32 | -365.36 | 14,518,396.92 | 2,115,318.98 | 39° 57' 59.780 N | 109° 18' 18.51 |
| 5,601.00 | 1.14 | 41.82 | 5,549.91 | -295.99 | -364.16 | 14,518,398.27 | 2,115,320.15 | 39° 57' 59.793 N | 109° 18' 18.49 |
| 5,692.00 | 0.79 | 333.88 | 5,640.90 | -294.75 | -363.84 | 14,518,399.52 | 2,115,320.45 | 39° 57' 59.806 N | 109° 18' 18.49 |
| 5,782.00 | 0.79 | 321.05 | 5,730.89 | -293.71 | -364.50 | 14,518,400.54 | 2,115,319.77 | 39° 57' 59.816 N | 109° 18' 18.50 |
| 5,873.00 | 0.70 | 326.94 | 5,821.88 | - 292.75 | -365.20 | 14,518,401.48 | 2,115,319.05 | 39° 57' 59.825 N | 109° 18' 18.51 |
| 5,964.00 | 0.88 | 317.71 | 5,912.87 | -291.77 | -365.97 | 14,518,402.45 | 2,115,318.26 | 39° 57' 59.835 N | 109° 18' 18.52 |
| 6,054.00 | 0.88 | 300.22 | 6,002.86 | -290.91 | -367.03 | 14,518,403.29 | 2,115,317.18 | 39° 57' 59,844 N | 109° 18' 18.53 |
| 6,145.00 | 0.62 | 298.02 | 6,093.85 | -290.33 | -368.07 | 14,518,403.85 | 2,115,316.13 | 39° 57' 59.849 N | 109° 18' 18.54 |
| 6,235.00 | 0.44 | 300.40 | 6,183.85 | -289.93 | -368.80 | 14,518,404.24 | 2,115,315.40 | 39° 57' 59.853 N | 109° 18' 18.55 |
| 6,389.00 | 0.79 | 232.28 | 6,337.84 | -290.28 | -370.15 | 14,518,403.87 | 2,115,314.06 | 39° 57' 59.850 N | 109° 18' 18.57 |
| 6,416.00 | 0.88 | 221.82 | 6,364.84 | -290.54 | -370.43 | 14,518,403.59 | 2,115,313.78 | 39° 57' 59.847 N | 109° 18' 18.57 |
| 6,507.00 | 0.97 | 228.85 | 6,455.83 | -291.57 | -371.48 | 14,518,402.55 | 2,115,312.75 | 39° 57' 59.837 N | 109° 18' 18.59 |
| 6,598.00 | 0.97 | 224.72 | 6,546.81 | -292.63 | -372.60 | 14,518,401.47 | 2,115,311.65 | 39° 57' 59.827 N | 109° 18' 18.60 |
| 6,688.00 | 0.97 | 131.82 | 6,636.81 | -293.68 | -372.57 | 14,518,400.42 | 2,115,311.70 | 39° 57' 59.816 N | 109° 18' 18.60 |
| 6,779.00 | 0.70 | 129.62 | 6,727.80 | -294.54 | -371.57 | 14,518,399.57 | 2,115,312.72 | 39° 57' 59.808 N | 109° 18' 18.59 |
| | 0.70 | 151.25 | 6,817.79 | -295.50 | -370.81 | 14,518,398.63 | 2,115,313.49 | 39° 57' 59.798 N | 109° 18' 18.58 |
| 6,869.00 6,960.00 | 0.88 | 162.14 | 6,908.78 | -296.78 | -370.26 | 14,518,397.36 | 2,115,314.07 | 39° 57' 59.786 N | 109° 18' 18.57 |
| 7,051.00 | 1.14 | 169.88 | 6,999.76 | -298.33 | -369.89 | 14,518,395.81 | 2,115,314.47 | 39° 57' 59.770 N | 109° 18' 18.57 |
| | 1.14 | 165.75 | 7,089.74 | -300.29 | -369.46 | 14,518,393.87 | 2,115,314.94 | 39° 57' 59.751 N | 109° 18' 18.56 |
| 7,141.00 | 0.88 | 183.33 | 7,089.74 | -302.07 | -369.22 | 14,518,392.09 | 2,115,315.21 | 39° 57' 59.733 N | 109° 18' 18.56 |
| 7,232.00 | 0.88 | 176.56 | 7,160.72 | -302.76 | -369.22 | 14,518,391.40 | 2,115,315.22 | 39° 57' 59.726 N | 109° 18' 18.56 |
| 7,277.00 | | | 1,220.12 | -002.70 | -000.22 | 17,010,001.70 | £,115,0101££ | 33 3. 30172011 | |
| 8,090.00 | Production N 0.88 | 176.56 | 8,038.62 | -315.22 | | | 2,115,316.21 | 39° 57' 59.603 N | 109° 18' 18.55 |

PECENTO

JUN 2 2 2010

DIV. OF CIL, GAG & MIMING

4/12/2010 3:49:23PM



Survey Report - Geographic



Company:

Project: Site: Uintah County, UT UTM12 Bonanza 1023-10A Pad Bonanza 1023-10H1BS

Well: Wellbore:

Design:

OH OH

Kerr McGee Oil and Gas Onshore LP

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well Bonanza 1023-10H1BS

GL 5434' & RKB 14' @ 5448.00ft (Ensign 139)

GL 5434' & RKB 14' @ 5448.00ft (Ensign 139)

True

Minimum Curvature

EDM 2003.16 Multi-User Db

| Targets | | | | | | | | | |
|---|------------------|-----------------------|---------------------------|--------------------------|--------------------------|-----------------------------------|-----------------|------------------|-------------------|
| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
| B 1023-10H1BS PBHL - actual wellpath mis - Circle (radius 25.00 | | 0.00 iter by 12.82 | 7,896.00 ft at 7947.26 | -305.58 ft MD (7895.9 | -358.18 0 TVD, -313.0 | 14,518,388.79 04 N, -368.60 E) | 2,115,326.31 | 39° 57' 59.699 N | 109° 18' 18.421 W |

| esign Anr | notations | | | | | |
|-----------|---------------|---------------|---------------|---------------|---------------------------------|--|
| | Measured | Vertical | Local Coo | rdinates | | |
| | Depth (ft) | Depth (ft) | +N/-S (ft) | +E/-W (ft) | Comment | |
| | 105.00 | 105.00 | 0.03 | -0.25 | First SDI Surface MWD Survey | |
| | 2,015.00 | 1,975.86 | -239.98 | -278.40 | Last SDI Surface MWD Survey | |
| | 2,070.00 | 2,029.24 | -248.73 | -288.31 | First SDI Production MWD Survey | |
| | 7,277.00 | 7,225.72 | -302.76 | -369.22 | Last SDI Production MWD Survey | |
| | 8,090.00 | 8,038.62 | -315.22 | -368.47 | Projection To TD | |

| 01 1 10 | Ammente d Day | Data |
|-------------|---------------|-------|
| Checked By: | Approved Bv: | Date: |
| Onconou by. | | |

REGEIVED
JUN 2 2 2010

DIV. OF CIL, GAS & MITTING

| | STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES | | FORM 9 |
|--|---|---|--|
| | DIVISION OF OIL, GAS, AND MINI | | 5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 40736 |
| SUND | RY NOTICES AND REPORTS O | ON WELLS | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: |
| Do not use this form for proposition-hole depth, reenter plu DRILL form for such proposals. | xisting wells below current E APPLICATION FOR PERMIT TO | 7.UNIT or CA AGREEMENT NAME: | |
| 1. TYPE OF WELL Gas Well | | | 8. WELL NAME and NUMBER: BONANZA 1023-10H1BS |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS | HORE, L.P. | | 9. API NUMBER: 43047505170000 |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S | PHONE treet, Suite 600, Denver, CO, 80217 3779 | NUMBER: 720 929-6515 Ext | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1199 FNL 0241 FEL | | | COUNTY: UINTAH |
| QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENE Section: 10 | IP, RANGE, MERIDIAN: Township: 10.0S Range: 23.0E Meridian: S | | STATE: UTAH |
| 11. CHE | CK APPROPRIATE BOXES TO INDICATE | NATURE OF NOTICE, REPORT, | OR OTHER DATA |
| TYPE OF SUBMISSION | | TYPE OF ACTION | |
| The operator request on the subject we | CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION MPLETED OPERATIONS. Clearly show all perting the approval to conduct wellheaded location. Please find the attacked repair work on the subject well approved to the subject well | I/casing repair operations the procedure for the vell location. | Accepted by the Utah Division of Oil, Gas and Mining ate: 04/06/2011 |
| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE | |
| Andy Lytle SIGNATURE | 720 929-6100 | Regulatory Analyst DATE | |
| N/A | | 4/6/2011 | |

WORKORDER # 88119297

Name: <u>BONANZA 1023-10H1BS - 1023-10A PAD</u> 4/5/11

Surface Location: NENE Sec. 10, T10S, R23E

Uintah County, UT

API: 4304750517 **LEASE#:** UTU-40736

ELEVATIONS: 5434' GL 5447' KB

TOTAL DEPTH: 8090' **PBTD:** 8030'

SURFACE CASING: 8 5/8", 28# IJ-55 @ 2043'

PRODUCTION CASING: 4 1/2", 11.6#, I-80 @ 8074'

T.O.C.@ ~82 per CBL

PERFORATIONS: Mesaverde 6596' – 7778'

| Tubular/Borehole | Drift | Collapse psi | Burst psi | Capacities | | |
|--------------------------------|--------|--------------|-----------|------------|----------|-----------|
| | inches | | | Gal./ft. | Cuft/ft. | Bbl./ft. |
| 2.375" 4.7# J-55 tbg. | 1.901 | 8100 | 7700 | 0.1624 | 0.0217 | 1 0.00387 |
| 4.5" 11.6# I-80 | 3.875 | 6350 | 7780 | 0.6528 | 0.087 | 2 0.0155 |
| 8.625" 28# J-55 | 8.097 | 1370 | 2950 | 2.6223 | 0.350 | 5 0.0624 |
| Annular Capacities | | | | | | |
| 2.375" tbg. X 4 1/2" 11.6# csg | | | | 0.4227 | 0.0565 | 0.01 |

GEOLOGICAL TOPS:

1122' Green River

1358' Bird's Nest

1860' Mahogany

4068' Wasatch

5795' Mesaverde

BONANZA 1023-10H1BS - WELLHEAD REPLACEMENT PROCEDURE -

PREP-WORK PRIOR TO MIRU:

- 1. Dig out down to the 2" surface casing valve or to the valve on the riser off the surface casing.
- 2. Install a tee with 2 valves, with a pressure gauge and sensor on one valve.
- 3. Open casing valve and record pressures.
- 4. Install nipple and steel hose on the other valve, the relief valve,. Do not use hammer unions. No impact equipment or tools to be used for any of this installation. Extend hose and hard piping to a downwind location at least 100' from the wellhead. Consider installing a manifold so that vent area could be in two locations approx. 90 degrees apart from the wellhead.
- 5. Open the relief valve and blow well down to the atmosphere.
- 6. Make a determination of amount of gas flow, either by installation of a choke nipple, bucket test or other.
- 7. Shut well in. Observe for rate of build-up by utilizing sensor data. Do not build-up for more than 24 hours. Vent gas through the vent line and leave open to the atmosphere.

WORKOVER PROCEDURE:

- 1. MIRU workover rig.
- 2. Kill well with 10# brine / KCL (dictated by well pressure).
- 3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.
- 4. POOH w/ tubing laying down extra tubing.
- 5. Rig up wireline service. RIH and set CBP @ ~6546'. Dump bail 4 sx cement on top of plug. POOH and RD wireline service. TIH w/ tubing and seating nipple. Land tubing ±60' above cement. RDMO.
- 6. Monitor well pressures. If surface casing is dead. MIRU. ND WH and NU BOP. POOH w/ tubing.
- 7. Depending on conditions at wellsite, continue with either CUT/PATCH Procedure or BACK-OFF Procedure.

CUT/PATCH PROCEDURE:

- 1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.
- 2. POOH, LD cutters and casing.
- 3. PU 7 3/8" overshot with 4 ½" right hand standard wicker grapple, 1 4 ¾" drill collar with 3 ½" IF threads, pup joint, manual bumper sub, and crossovers. If casing cut is deeper than ±30' utilize >7000 ft-lb torque pipe as needed. Pull a minimum of 10,000# to keep grapple engaged if cement top is high (<~900'). If cement top is low (>~900'), more weight will be required to put casing in neutral. Torque casing string to ±7000 ft-lbs, count number of turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out, release overshot, POOH, and lay down.
- 4. TIH w/ skirted mill and dress off the fish top for approximately ½ hour. TOOH.
- 5. PU & RIH w/ $4\frac{1}{2}$ " 10k external casing patch on $4\frac{1}{2}$ " P-110 casing. Ensure that sliding sleeve assembly shifts ±3' and casing tags no-go portion of patch. NOTE: Shear pins will shear at 3500 to 4500 lbs.
- 6. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 7,000# / 9,000# psi.
- 7. Install slips. Land casing w/ 80,000# tension.
- 8. Cut-off and dress 4 ½" casing stub.
- 9. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~6496'. Clean out to PBTD (8030').
- 10. POOH, land tbg and pump off POBS.
- 11. NUWH, RDMO. Turn well over to production ops.

BACK-OFF PROCEDURE:

- 1. PU internal casing cutters and RIH. Cut casing at +/- 6' from surface.
- 2. POOH, LD cutters and casing.
- 3. PU 4 ½" overshot. RIH, latch fish. Pick string weight to neutral.
- 4. MIRU casing crew and wireline services. RIH and shoot string shot at casing collar @ ± 46'.
- 5. Back-off casing, POOH.

- 6. PU new casing joint with buttress threads and entry guide and RIH. Tag casing top. Thread into casing and torque up to ±7000 ft-lbs, count number of additional turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out go to step 7.
- 7. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 7,000# / 9,000# psi.
- 8. Install slips. Land casing w/ 80,000# tension.
- 9. Cut-off and dress 4 ½" casing stub.
- 10. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~6496'. Clean out to PBTD (8030').
- 11. POOH, land tbg and pump off POBS.
- 12. NUWH, RDMO. Turn well over to production ops.

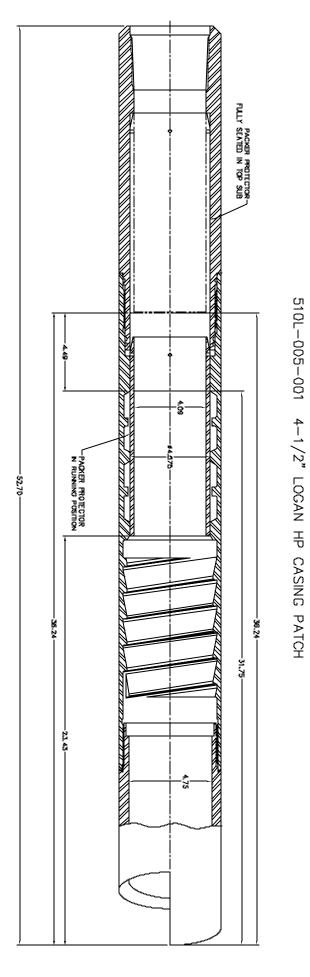


Logan High Pressure Casing Patches Assembly Procedure

All parts should be thoroughly greased before being assembled.

- 1. Install all four Logan Type "L" Packers in the spaces provided in the Casing Patch Bowl. Refer to diagram provided for proper installation.
- 2. Install Packer Protector from the Basket Grapple end of the Bowl. The beveled end of the Packer Protector goes in first. Carefully push the Packer Protector through the four Type "L" Packers.
- 3. Align Shear Pin Holes in Packer Protector so that the holes have just passed into the counter bore at the Top Sub end, refer to diagram. The Packer Protector is provided with four Shear Pin Holes. Use only two holes, 180 degrees apart and install the pins.
- 4. Screw the Basket Grapple in from the lower end of the Bowl, using left-hand rotation. The Tang Slot in the Basket Grapple must land in line with the slot in the Bowl.
- 5. Insert the Basket Grapple Control into the end of the Bowl. Align Tang on the Basket Grapple Control with the Tang Slot of the Bowl and Basket Grapple. This secures the Bowl and the Basket Grapple together.
- 6. Install the Cutlipped Guide into the lower end of the Bowl.
- 7. Install O-Rings on the two five-foot long Extensions. Screw the first Extension into the top end of the Bowl. Screw the second Extension into the top end of the first Extension.
- 8. Install O-Ring on Top Sub. Screw Top Sub into top end of second Extension.

Follow recommended Make-Up Torque as provided in chart.



STRENGTH DATA FOR LOGAN 5.88" OD "L" TYPE CSG PATCH 4-1/2 CASING, 10K PSI MAX WP 125K YIELD MAT'L LOGAN ASSEMBLY NO. 510L-005 -000



COLLAPSE PRESSURE: 11,222 PSI @ 0 TENSILE 8,634 PSI @ 220K TENSILE

Tensile Strength @ Yield: Tensile Strength w/ 0 Int. Press.= 472,791lbs. Tensile Strength w/ 10K Int. Press.= 313,748lbs.

DATA BY SLS 11/16/2009

| | | | FORM 9 |
|--|--|-----------------------------------|--|
| | STATE OF UTAH | | FORM 9 |
| | DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINI | | 5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 40736 |
| SUND | RY NOTICES AND REPORTS O | ON WELLS | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: |
| Do not use this form for proposition-hole depth, reenter plu DRILL form for such proposals. | xisting wells below current e APPLICATION FOR PERMIT TO | 7.UNIT or CA AGREEMENT NAME: | |
| 1. TYPE OF WELL Gas Well | | | 8. WELL NAME and NUMBER: BONANZA 1023-10H1BS |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS | HORE, L.P. | | 9. API NUMBER: 43047505170000 |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S | PHONE Street, Suite 600, Denver, CO, 80217 3779 | E NUMBER: 720 929-6515 Ext | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1199 FNL 0241 FEL | | | COUNTY: UINTAH |
| QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENE Section: 10 | IP, RANGE, MERIDIAN: Township: 10.0S Range: 23.0E Meridian: S | | STATE: UTAH |
| 11. CHE | CK APPROPRIATE BOXES TO INDICATE | NATURE OF NOTICE, REPORT, | OR OTHER DATA |
| TYPE OF SUBMISSION | | TYPE OF ACTION | |
| | ACIDIZE | ALTER CASING | ✓ CASING REPAIR |
| ☐ NOTICE OF INTENT | CHANGE TO PREVIOUS PLANS | CHANGE TUBING | CHANGE WELL NAME |
| Approximate date work will start: | CHANGE WELL STATUS | COMMINGLE PRODUCING FORMATIONS | CONVERT WELL TYPE |
| SUBSEQUENT REPORT | DEEPEN [| FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| Date of Work Completion: 7/25/2011 | OPERATOR CHANGE | PLUG AND ABANDON | PLUG BACK |
| | PRODUCTION START OR RESUME | RECLAMATION OF WELL SITE | RECOMPLETE DIFFERENT FORMATION |
| SPUD REPORT Date of Spud: | REPERFORATE CURRENT FORMATION | SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| | ☐ TUBING REPAIR | VENT OR FLARE | ☐ WATER DISPOSAL |
| DRILLING REPORT Report Date: | □ WATER SHUTOFF | SI TA STATUS EXTENSION | APD EXTENSION |
| Report Date: | ☐ WILDCAT WELL DETERMINATION | OTHER | |
| | | | OTHER: Wellhead Repair |
| l . | DMPLETED OPERATIONS. Clearly show all pertin AS CONCLUDED WELLHEAD/CA | | olumes, etc. |
| | CATION. PLEASE SEE THE ATTA | | |
| | TORY FOR DETAILS OF THE OPE | ERATIONS. | Accepted by the |
| | | | Jtah Division of |
| | | | l, Gas and Mining |
| | | FOR | R RECORD ONLY |
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| NAME (PLEASE PRINT) Gina Becker | PHONE NUMBER 720 929-6086 | TITLE Regulatory Analyst II | |
| SIGNATURE N/A | | DATE 7/25/2011 | |

| | | | | US | ROCI | KIES F | REGION | | |
|--------------------------|-------------------|------------------|----------|------------|-------------|---------|-------------------|--|--|
| Operation Summary Report | | | | | | | | | |
| Well: BONANZ | 'A 1023-10H1BS | [GREEN] | Spud Co | onductor: | 2/22/20 | 010 | Spud Date: 2/2 | 6/2010 | |
| Project: UTAH- | -UINTAH | | Site: BO | NANZA | 1023-10 | A PAD | | Rig Name No: LEED 698/698 | |
| Event: WELL V | VORK EXPENS | | Start Da | te: 6/30/2 | 2011 | | | End Date: 7/6/2011 | |
| Active Datum: | RKB @5,448.00 | ft (above Mean | Sea Leve | UWI: N | E/NE/0/ | 10/S/23 | /E/10/0/0/6/PM/N/ | /1,199.00/E/0/241.00/0/0 | |
| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation | |
| 6/30/2011 | 7:00 - 8:30 | | ALL | 30 | G | Р | | | |
| | 8:30 - 9:30 | | ALL | 30 | Α | Р | | MIRU. | |
| | 9:30 - 10:20 | 0.83 | ALL | 47 | Α | Р | | FCP. 58 PSI. FTP. 58 PSI. BLEW TBG DWN, CONTROL TBG W/ 10 BBLS T-MAC, ND WH, NU BOP'S, RU FLOOR & TBG EQUIPMENT, | |
| | 10:20 - 13:00 | 2.67 | ALL | 31 | I | Р | | UNLAND TBG HANGER, POOH 234 JTS. 2-3/8 J-55 TBG, HAD HAIL STORM & LIGHTNING DELAY. | |
| | 13:00 - 15:30 | 2.50 | ALL | 34 | I | P | | RU CUTTERS WIRELINE SERVICES, RIH & SET 4-1/2 BAKER 10K CBP @ 6546', RU CMT BAILER & DUMP BAIL 4 SX CLASS "G" CMT ON PLUG, POOH & RD CUTTERS WIRELINE SERVICES, FILL 4-1/2 CSG W/ T-MAC, P.T. CBP TO 3000 PSI. HELD, SWI, SDFN. | |
| 7/1/2011 | 7:00 - 7:30 | | ALL | 48 | | Р | | HSM, REVIEW CUT/ PATCH PROCEDURE | |
| | 7:30 - 8:00 | 0.50 | ALL | 47 | Α | Р | | RD FLOOR & TBG EQUIPMENT, ND BOP'S, ND CSG BOWL, RU PWR SWVL. | |
| | 8:00 - 9:30 | | ALL | 31 | В | Р | | PU INTERNAL CSG CUTTER & RIH, CUT 4-1/2 CSG, 3' FROM SURFACE, RD PWR SWVL, POOH, LD CSG CUTTER & MANDREL, PU 4-1/2 OVERSHOT & RIH, LATCH FISH, RU CSG CREW & WIRELINE SERVICES, RIH & STRING SHOT CSG COLLAR, BACK-OFF PUP JNT, PU NEW 10' PUP JNT, TAG CSG TOP, THREAD INTO CSG, TORQUE CSG TO 7000# W/ 37 ROTATION ON CSG, PU CSG TO 100,000# TENSION. | |
| | 9:30 - 10:30 | | ALL | 33 | С | Р | | RU B&C QUICK TEST, P.T. 4-1/2 CSG TO 1000 PSI. FOR 15 MINS, LOST 7.5 PSI. IN 15 MINS, P.T. 4-1/2 CSG TO 3500 PSI. LOST 22.5 PSI IN 30 MINS, RD B&C QUICK TEST. | |
| | 10:30 - 12:00 |) 1.50 | ALL | 31 | I | Р | | SET C-21 SLIPS, LAND 4-1/2 CSG, W/ 80,000# TENSION, CUT & DRESS 4-1/2 CSG STUB, INSTALL "H" PLATE, FLANGE & CROSSOVER SPOOL, TORQUE ALL 1-7/8 BOLTS. | |
| | 12:00 - 12:45 | | ALL | 47 | Α | Р | | NU CSG BOWL, NU BOP'S, RU FLOOR & TBG EQUIPMENT. | |
| | 12:45 - 15:00 |) 2.25 | ALL | 31 | I | | | PU 3-7/8 MILL & RIH 207 JTS. 2-3/8 J-55 TBG, TAG TOP OF CMT @ 6508' POOH 4 JTS. EOT @ 6388' SWI, SDFWE. | |
| 7/5/2011 | 7:00 - 7:30 | | ALL | 48 | | Р | | HSM, REVIEW AIR FOAM SAFETY. | |
| | 7:30 - 8:00 | | ALL | 47 | Α | Р | | RU PWR SWVL, INSTALL TSF, RU TECH FOAM. | |
| | 8:00 - 8:30 | | ALL | 31 | Н | Р | | BROKE CIRC IN 30 MINS. | |
| | 8:30 - 10:00 | | ALL | 44 | A | Р | | TAG CMT @ 6508' D/O CMT F/ 6508' TO 6548' IN 12 MINS, D/O CBP IN 5 MINS, HAD 110 PSI. INCREASE, CONTROL TBG, LD PWR SWVL, POOH 2 JTS. TO REMOVE TSF, | |
| | 10:00 - 15:00 | | ALL | 31 | ı | P | | PU & RIH 2-3/8 J-55 TBG F/ TRAILER, TAG SCALE @ 7390' W/ 235 JTS. RU PWR SWVL, INSTALL TSF, BROKE CIRC IN 15 MINS, C/O F/7390' TO 7395' FELL THROUGHT, RD PWR SWVL, TIH TBG & TAG FILL @ 7983' W/ 254 JTS. CIRC HOLE CLEAN, POOH & LD 19 JTS. 2-3/8 J-55 TBG, POOH 100 JTS. EOT @ 4018', SWI, SDFN. | |
| 7/6/2011 | 7:00 - 7:30 | | ALL | 48 | | Р | | HSM, REVIEW TRIPPING OUT TBG. | |
| | 7:30 - 10:00 | 2.50 | ALL | 49 | Α | Р | | REPAIRED SANDLINE ON RIG. | |

| US ROCKIES REGION | | | | | | | | | |
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| Operation Summary Report | | | | | | | | | |
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| Active Datum: RKB @5,448.00ft (above Mean Sea Leve UWI: NE/NE/0/10/S/23/E/10/0/0/6/PM/N/1,199.00/E/0/241.00/0/0 | | | | | | | | | |
| 1 | | | | | | | | | |
| H 134 JTS, 2-3/8 J-55 HALF POBS & RIH @ 3780', RU SWAB H & BROACH TBG, EQUIPMENT, FINISH LAND TBG HANGER, I.9 BROACH TO EOT QUIPMENT, RD ND BOP'S, NU WH, | | | | | | | | | |
| 13' 1.0' 7366.26' 2.20' 7382.46' | | | | | | | | | |
| QL VI | | | | | | | | | |